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Compensation Opinion Novartis

November 16, 2009

About the Compensation Opinion

This compensation opinion provides an independent analysis of Novartis' compensation practice over the last six years. CEO Daniel Vasella's variable pay component has been analyzed with the Obermatt Bonus Index methodology.

The Obermatt Bonus Index provides recommended levels of executive bonuses based on indexing operating performance. This approach rewards true operating performance – free from the external factors which distort current bonus plans.

Bonus Index is a fair yet motivational solution for executives and which is also acceptable by shareholders. It prevents the excessive or deficient bonus payments which can result from current bonus plans. Even in a recession, out-performers can be rewarded with high bonuses if they beat their competitors.



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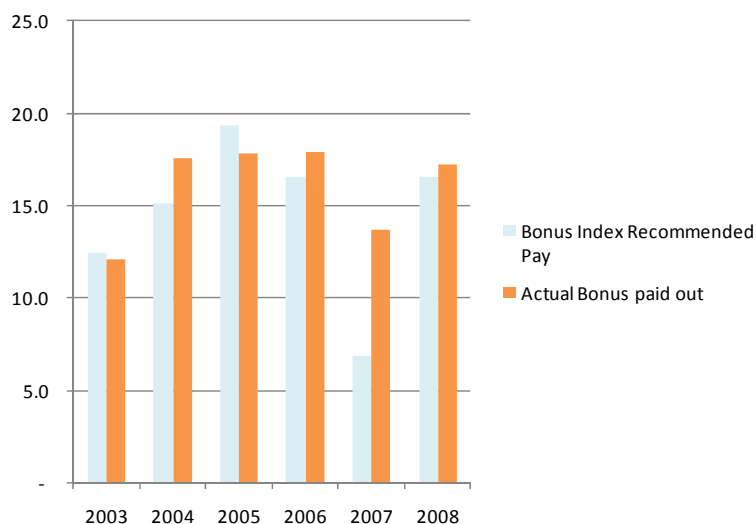
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I. Executive Summary

In the much heated debate over executive compensation, some executives have come under greater scrutiny and pressure from public opinion than others. Daniel Vasella is one of these much criticized managers. As an independent outsider, Obermatt has analyzed whether the bonus compensation of Novartis' Chairman and CEO over the last six years was justified from a performance perspective.

For this opinion, we analyzed the indexed operating performance of Novartis' largest divisions Pharmaceuticals, Sandoz and Consumer Health since 2003 when compensation data became more publicly available. To get to Novartis Group results, we considered these three divisions (at 64%, 18% and 14% of 2008 Group revenues, respectively) and calculated the bonus recommendation accordingly.

Obermatt's analysis shows that paid bonus levels (orange bars) were largely in line with Bonus Index recommendation levels (blue bars) over the past years.



The analysis shows that Daniel Vasella's variable compensation component fluctuated with indexed operating performance. The exception was in year 2007 where Daniel Vasella's actual bonus was CHF 6.8 Mio. higher than the Bonus Index recommended level. Apart from this exception, Daniel Vasella's compensation is fair since it reflects to a large degree how much Novartis outperformed its peers over the past six years. This analysis does not include an independent assessment of the absolute level of pay which may or may not be in line with peers.

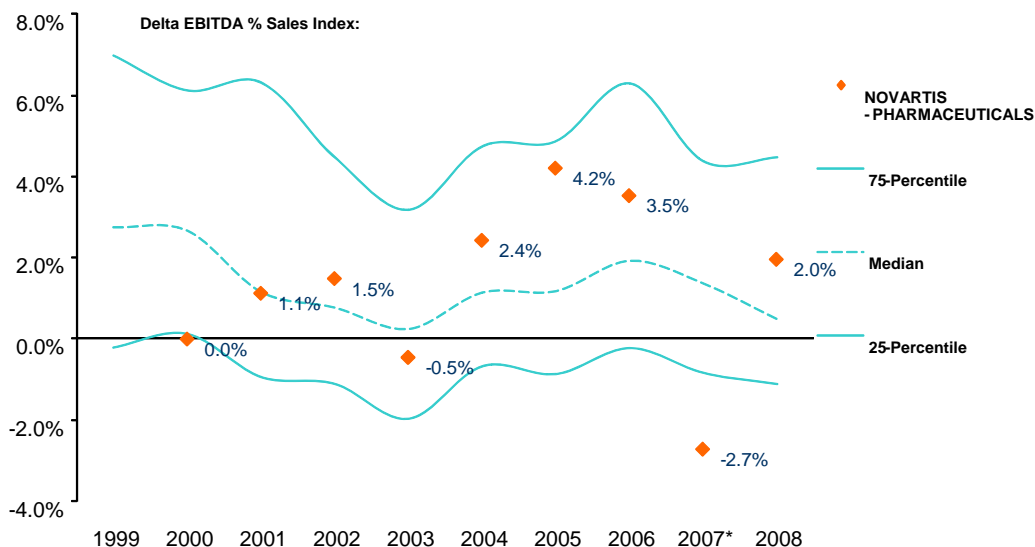
The close correlation between paid and deserved bonus levels as shown above is remarkable in two ways:

1. Novartis paid for performance, except in 2007.
2. Bonus Index analysis arrived at largely the same results from an indexed operating performance perspective, but also unmasked the excessive pay in 2007.

For a detailed explanation about the Bonus Index methodology and the tools applied in the analyses, please refer to Section IV of this report.

II. Novartis Indexed Operating Performance

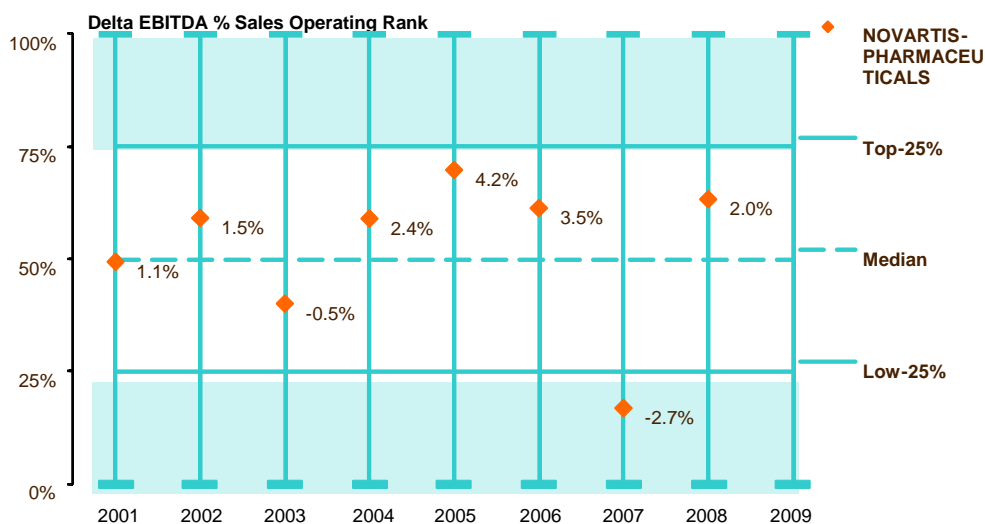
1 Indexed Operating Performance Pharmaceuticals



Peer Group: Pharma large only

* 2007 adjusted for restructuring

In four out of the last six years, Novartis recorded above median performance in its pharmaceutical division, based on the key metric delta EBITDA % Sales (above). In these years, Pharmaceuticals achieved very good relative positions between the 59th and 70th percentiles (below). The position in 2007 was affected among others by delayed US regulatory approvals and competition from generics.

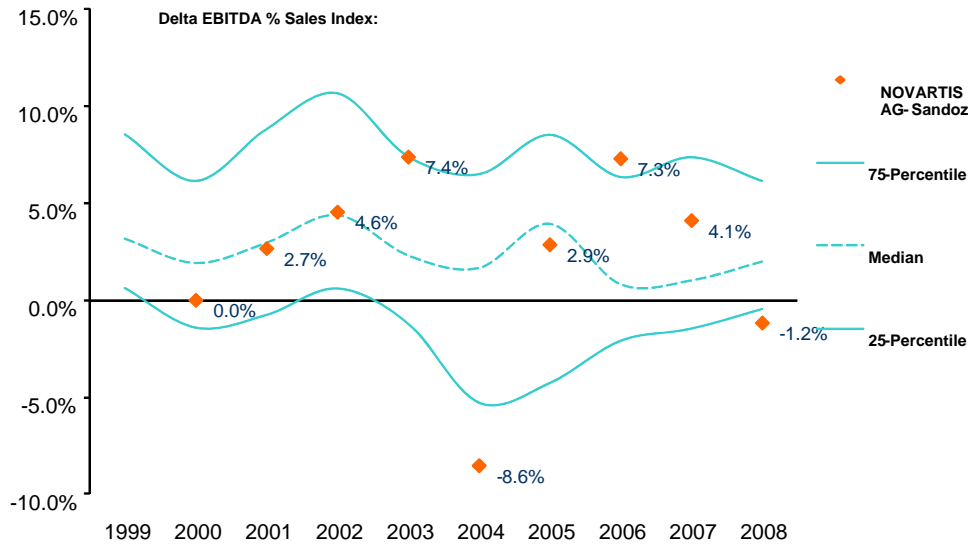


NOVARTIS - PHARMACEUTICALS	2001	2002	2003	2004	2005	2006	2007	2008
Actual Value: Delta EBITDA % Sales	1.1%	1.5%	-0.5%	2.4%	4.2%	3.5%	-2.7%	2.0%
Rank: Delta EBITDA % Sales	49.4%	59.1%	40.1%	59.0%	69.8%	61.3%	16.9%	63.3%

* 2007 adjusted for restructuring charges

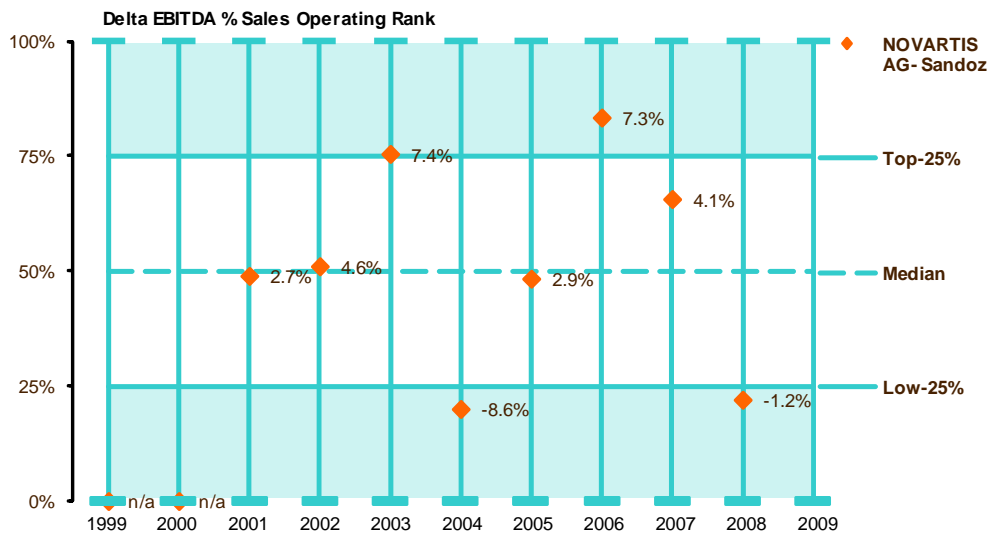
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2 Indexed Operating Performance Sandoz



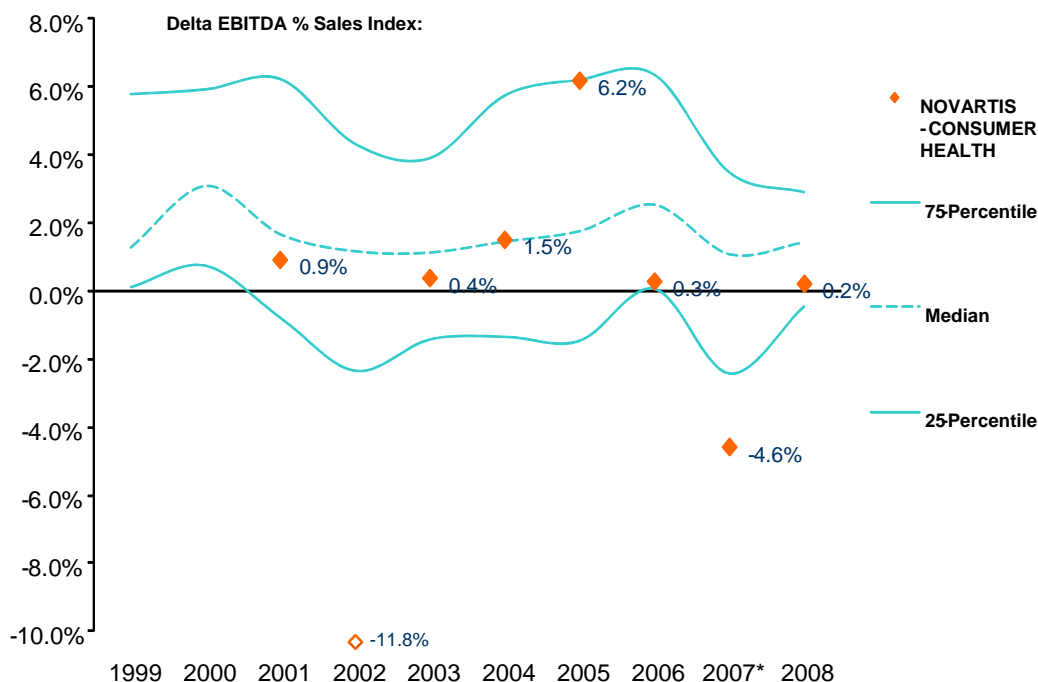
Peer Group: Generics & OTC - All

Sandoz' operating performance recovered impressively from the dip in 2004 when the division was first organized as such, recording good (2005) to very good results compared to international peers until 2007. The division's decline into the lowest quartile in 2008 may be a result of Sandoz being heavily affected by price cuts in an ever increasingly competitive environment.



NOVARTIS AG- Sandoz	2001	2002	2003	2004	2005	2006	2007	2008
Actual Value: Delta EBITDA % Sales	2.7%	4.6%	7.4%	-8.6%	2.9%	7.3%	4.1%	-1.2%
Rank: Delta EBITDA % Sales	48.9%	51.0%	75.4%	20.0%	48.3%	83.3%	65.6%	22.0%

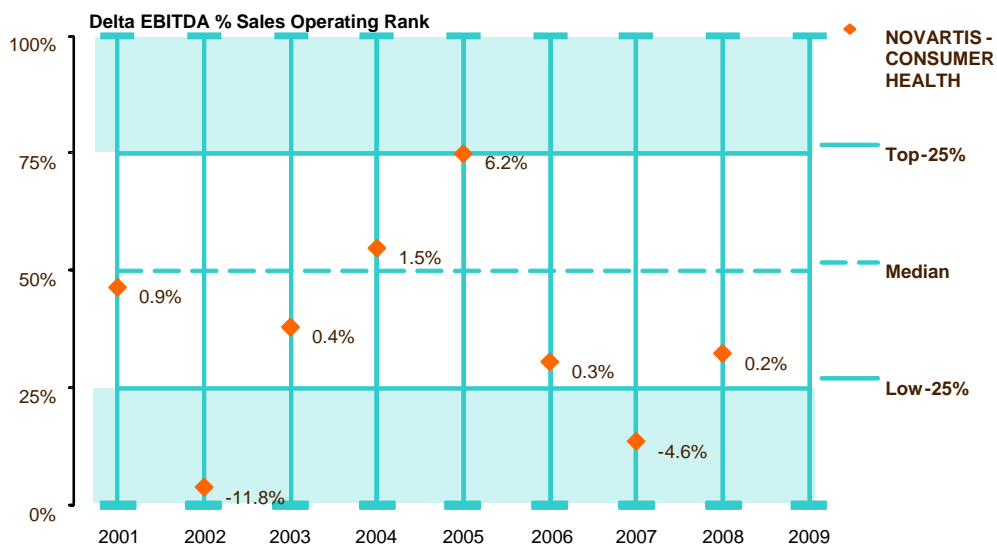
3 Indexed Operating Performance Consumer Health



Peer Group: Consumer Health

* 2007 adjusted for restructuring

The Consumer Health division has reported volatile operating performance compared to its industry peers. While the division achieved a record year in 2005 with a 75-percentile position, it ranked around the median in two out of the last six years and was way below the industry in 2007.



NOVARTIS - CONSUMER HEALTH	2001	2002	2003	2004	2005	2006	2007*	2008
Actual Value: Delta EBITDA % Sales	0.9%	-11.8%	0.4%	1.5%	6.2%	0.3%	-4.6%	0.2%
Rank: Delta EBITDA % Sales	46.4%	3.7%	37.9%	54.8%	75.0%	30.5%	13.5%	32.3%

* 2007 adjusted for restructuring charges

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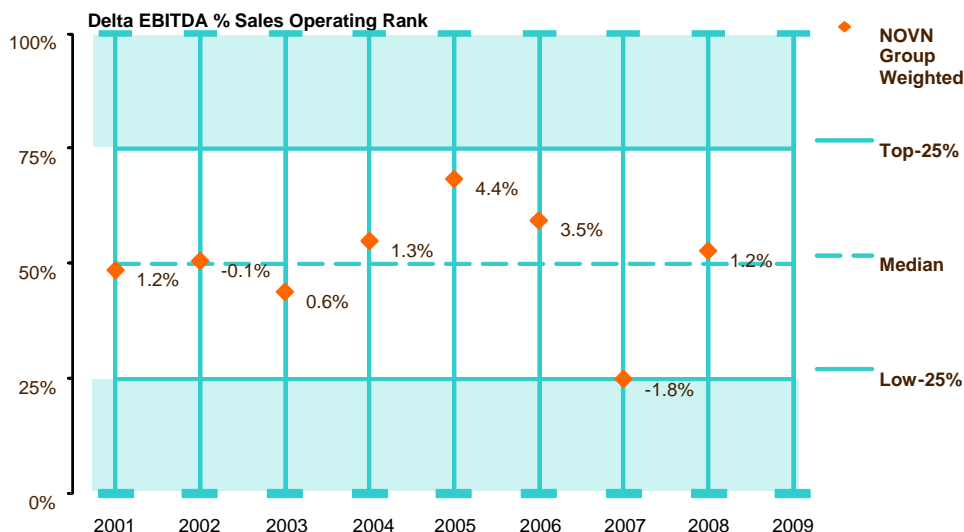
4 Ranked Operating Performance Group

4.1 Operating Weightings Applied to Rank Novartis Group

In order to derive the Group operating performance we have combined the sales and EBITDA weightings of the three most significant divisions. The respective weights used to rank the Novartis Group are shown in the table below:

Combined Sales & EBITDA Weightings	2001	2002	2003	2004	2005	2006	2007	2008	5-year Average
NOVARTIS - PHARMACEUTICALS	68%	78%	75%	77%	71%	71%	70%	71%	72%
NOVARTIS AG- Sandoz	6%	8%	11%	9%	11%	14%	17%	16%	13%
NOVARTIS - CONSUMER HEALTH	25%	14%	14%	14%	19%	16%	13%	13%	15%
Total 3 Divisions	100%	100%	100%	100%	100%	100%	100%	100%	100%

4.2 Weighted Operating Rank Novartis Group



NOVN Group Sales & EBITDA Weighted	2001	2002	2003	2004	2005	2006	2007*	2008
Actual Value: Delta EBITDA % Sales	1.2%	-0.1%	0.6%	1.3%	4.4%	3.5%	-1.8%	1.2%
Rank: Delta EBITDA % Sales	48.6%	50.6%	43.8%	55.0%	68.5%	59.4%	24.8%	52.8%

* 2007 adjusted for restructuring charges (Pharma and Consumer Health division's)

Based on the three largest divisions weighted operating ranks, the Novartis Group showed above median results in four out of the last six years. The Group indexed operating performance in 2007 below the median was a net result of the challenges encountered by the Pharmaceutical and Consumer Health division.

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5 Bonus Calculations

5.1 Bonus Multiple Novartis Group

Since Operating Ranks are independent of external factors (including investor sentiment) and a standardized performance measure, deserved bonus levels are directly derived from the Operating Rank. The Bonus Index uses the following formula for calculating the Bonus Multiple.

$$\text{Bonus Multiple} = 2 * \text{Operating Rank on } \Delta\text{EBITDA in \% of sales}$$

The 2008 bonus multiple was thus calculated as follows: $2 * 0.528 = 1.1$

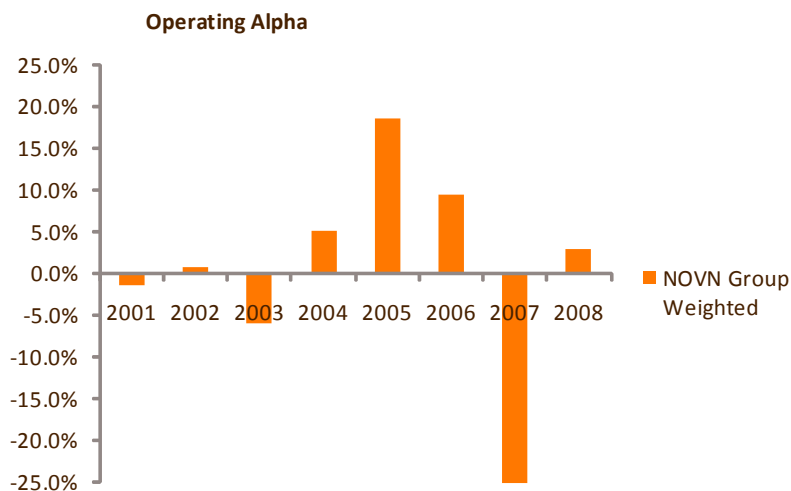
The table below summarizes how we derive the bonus multiples for the Novartis Group based on the combined sales and EBITDA weightings:

NOVN Group Weighted	2001	2002	2003	2004	2005	2006	2007	2008
Actual Value: Delta EBITDA % Sales	1.2%	-0.1%	0.6%	1.3%	4.4%	3.5%	-1.8%	1.2%
Rank: Delta EBITDA % Sales	48.6%	50.6%	43.8%	55.0%	68.5%	59.4%	24.8%	52.8%
Operating Alpha	-1.4%	0.6%	-6.2%	5.0%	18.5%	9.4%	-25.2%	2.8%
NOVN Group Weighted	2001	2002	2003	2004	2005	2006	2007	2008
Bonus Multiple	1.0	1.0	0.9	1.1	1.4	1.2	0.5	1.1

5.2 Operating Alpha Novartis Group

Once the Operating Rank is calculated, it is easy to also assess the Operating Alpha as the index out- or under-performance of an operating financial metric against the median. It is calculated as the difference between the actual value of a company's financial metric and the median.

We have compared the Operating Rank of the weighted Delta EBITDA % Sales metric against the weighted group median to show the Operating Alpha of the Novartis Group below.



For more information, please refer to our website: <http://www.obermatt.com/operating-alpha/>

III. Compensation Opinion

1 Indexed Compensation Analysis

We compare bonus multiples actually paid to Chairman and CEO Daniel Vasella since 2003 with achieved indexed operating performance as stated above as Group Operating Rank (division weighted).

The target bonus in the starting year is calculated based on the median performance (equal to a bonus multiple of 1.0x) of the weighted divisional performances. The recommended pay is derived by taking the weighted indexed bonus multiple for the Group times the target bonus. The resultant paid bonus multiple is calculated by dividing actual paid out bonus by the target bonus.

The table below summarizes our analysis.

in CHF million	2003	2004	2005	2006	2007	2008
Target Bonus CEO based on 2003	13.790	13.790	13.790	13.790	13.790	13.790
	100%					
Bonus Index Recommended Pay	12.411	15.169	19.306	16.548	6.895	15.169
Bonus Multiple	0.9 x	1.1 x	1.4 x	1.2 x	0.5 x	1.1 x
Actual Bonus paid out ²	12.080	17.614	17.844	17.869	13.719	17.261
Increase	-29.3%	45.8%	1.3%	0.1%	-23.2%	25.8%
Paid Bonus Multiple to CEO	0.9 x	1.3 x	1.3 x	1.3 x	1.0 x	1.3 x

Indexed Performance	(stated as Operating Rank)					
Pharmaceuticals	40.1%	59.0%	69.8%	61.3%	16.9%	63.3%
Sandoz	75.4%	20.0%	48.3%	83.3%	65.6%	22.0%
Consumer Health	37.9%	54.8%	75.0%	30.5%	13.5%	32.3%
Indexed Performance Group (Sales and EBITDA Weighted)	43.8%	55.0%	68.5%	59.4%	24.8%	52.8%
Indexed Bonus Multiple (weighted)	0.9 x	1.1 x	1.4 x	1.2 x	0.5 x	1.1 x

	2003	2004	2005	2006	2007	2008	Sum of all Years
Excess Pay (Paid vs. Recommended)	-0.331	2.444	-1.463	1.320	6.824	2.092	10.887

¹ Source: Annual Reports Novartis

² Variable Compensation only

From the indexed operating performance point of view the Bonus Index Recommended Pay matches the Actual Bonus Paid Out to a large degree with the one exceptional year of 2007. In that particular year where the Group performance was depressed by challenges in the Pharmaceutical and the Consumer Health divisions, the company paid CHF 6.8 Mio in excessive pay to Daniel Vasella.

While the actual bonus decreased by 23% in 2007 as reported EBITDA margin from continued operations contracted from 28% to 25%, the application of the Bonus Index shows that relative to peers the Group actually declined to the 25th percentile on Delta EBITDA % Sales, corresponding to a Bonus Multiple of 0.5x vs. the actual paid out multiple of 1.0x. Thus, in this instance the Bonus Index helps to unveil the massive overpay in 2007.

Looking at the combined pay-out over the past six years, the excessive pay to Group Chairman and CEO according to our calculations amounted to CHF 10.9 Mio. This amounts to 14.4% of total variable compensation paid out to Daniel Vasella over that time horizon.

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Comparison actual Novartis payment and Obermatt Bonusindex recommended payment

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IV. Method

1 Purpose and Approach

The purpose of the Compensation Opinion is to calculate deserved bonuses based on indexed operating performance for public companies and their significant divisions (business segments). This independent view provides management, investors and regulators with fair bonus levels based on true operating performance.

Indexed bonuses have the advantage that they pay appropriate bonuses that are neither too high nor too low. Traditional non-indexed bonus plans typically pay excessively high bonuses in up-cycles and bonuses that are too low in downturns. Indexed bonuses avoid this by assessing performance relative to peers, thereby measuring true operating performance only, not the economy's performance (external factors such as business cycles, resource price changes, customer demand or market sentiment at the stock exchanges etc.).

This is why indexed bonuses stay fairer even in strong up or down-cycles. Indexed bonuses do not need pre-negotiated financial targets. Therefore, they can be assessed outside-in by the objectively derived Obermatt Bonus Index. Indexed bonuses for assessed companies or divisions are determined in a three stage process:

1. Obermatt creates a peer universe of comparable companies which defines the relevant market of the assessed company.
2. Obermatt determines the actual performance of the assessed company as Operating Rank.
3. Based on the achieved Operating Rank, Obermatt calculates the deserved bonus as a bonus multiple compared to individually agreed expected or average bonus levels.

2 Peer Universe

Defining the industry sector and selecting an appropriate peer universe is paramount to the Compensation Opinions results. Peer selection involves selecting companies which are in the same line of business as the company or division being ranked. For this purpose, Obermatt uses the Standard Industrial Classification (SIC) and the Global Industry Classification Standard (GICS) to categorize the selected companies to their particular industry sector. Additionally, Obermatt performs a keyword and a manual search to narrow the peer universe to represent the company to be ranked as accurately as possible. Each peer universe ideally comprises around 30-200 companies. However, in some cases the peer universe can be smaller than 30 or even larger than 200 companies.

More information on www.obermatt.com/peer-universe.

2.1 Novartis Peers categorized according to region and size

Pharmaceuticals	Large	Total
Americas	33	33
Asia Pacific	40	40
Europe	39	39
Total	112	112

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Sandoz	Large	Medium	Small	n/a	Total
Africa	0	2	0	0	2
Americas	11	9	10	1	31
Asia Pacific	5	11	8	1	25
Europe	4	4	2	0	10
Total	20	26	20	2	68

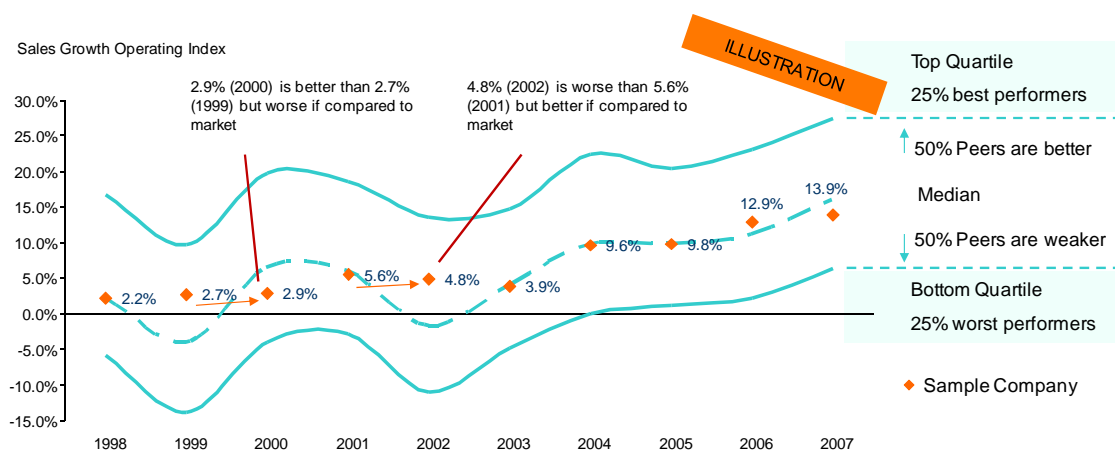
Consumer Health	Large	Medium	Small	n/a	Total
Americas	4	1	1	1	7
Asia Pacific	6	11	10	0	27
Europe	6	1	0	0	7
Total	16	13	11	1	41

For the Compensation Opinion on Novartis, we have used the group of “Large Peers Only” for the pharmaceutical segment and “All Peers” in the peer universes of the other two significant divisions

3 Operating Index

The Operating Index shows a company's performance on a financial metric or key performance indicator (KPI) compared with the median or average performance of that metric in the Peer Universe over a period of time. The chart below depicts an example of an Operating Index.

The Operating Index is calculated with actual values or with the deltas of the values from one period to the previous one.



The Operating Index shows a financial metric against median and quartile values of the same metric in a peer universe (PU) of comparable companies.

Above 75-Percentile: The 25% of companies with highest performance compared to PU.

Median: Average of the 50% of companies with median performance compared to PU.

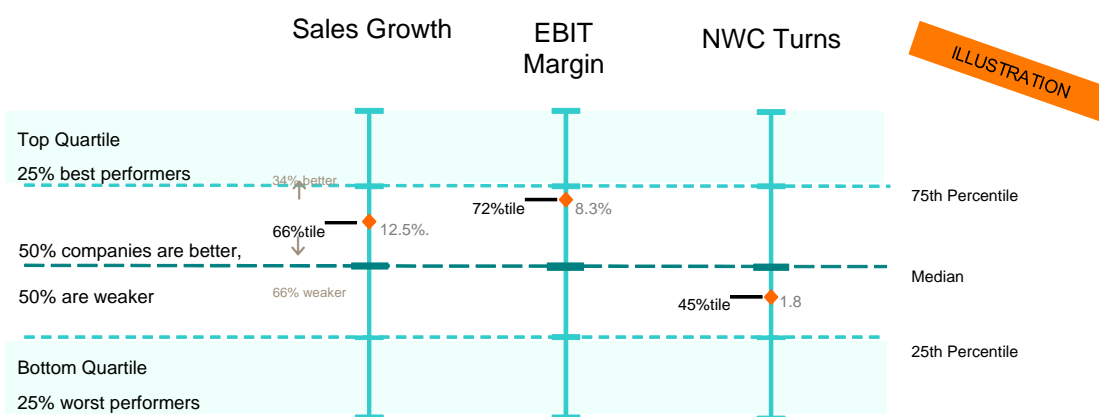
Below 25-Percentile: The 25% of companies with lowest performance compared to PU.

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4 Operating Rank

The Operating Rank converts the absolute values of performance measures to percentile rank values. Operating Rank shows the operating performance on any financial metric of a company against the performance of all peer companies for that same metric. The indexed performance is provided by showing the percentile ranks on a percentile rank chart called Operating Rank (see chart below). This allows the assessment of company performance against the competition at one glance, since percentile ranks can directly be interpreted. A higher percentile rank is always better – irrespective of the number of companies in the peer universe, irrespective of economic cycles, irrespective of the business model and even irrespective of the observed financial metric. The Operating Rank is therefore also an assessment of company performance.

This method of rank-based performance measurement is applied in sports. Times, distances and speed matter little in sports. Even goals, points and hits are irrelevant in the end. What counts solely is the ranking against the competitors. Thanks to this rank-based performance measurement, different sports can be compared directly. For this reason, Olympic medals are tallied per country to assess which country performed best. This is only possible when using rankings – it is not possible by looking at absolute performance values.



The Operating Rank shows a financial metric as a percentile rank of the values of the same metric in a peer universe (PU) of comparable companies.

The Operating Rank of any metric in any business for any time period can be directly compared because it is a standardized measure of performance. The goal is to rank in the highest percentile possible, regardless of what type of performance is evaluated.

More at www.obermatt.com/operating-rank.

5 Performance Metrics

For the Compensation Opinion, actual performance is based on **organic EBITDA** or EBIT where EBITDA is not available. Organic EBITDA is free from extraordinary effects, such as effects from mergers and acquisitions activity and restructuring. Obermatt uses organic EBITDA as reported by the Thomson Reuters Worldscope database. This database adjusts for non-operational activities such as divestitures of divisions, one-off depreciation, restructuring costs and other special items.

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Obermatt indexes EBITDA by calculating the Operating Rank of *Delta EBITDA in percent of sales* ($\Delta\text{EBITDA}/\text{sales}$). This figure is close to operating cash flow, is robust against influences by accounting decisions and is not affected by base level effects of EBITDA; thus works for negative EBITDA levels as well.

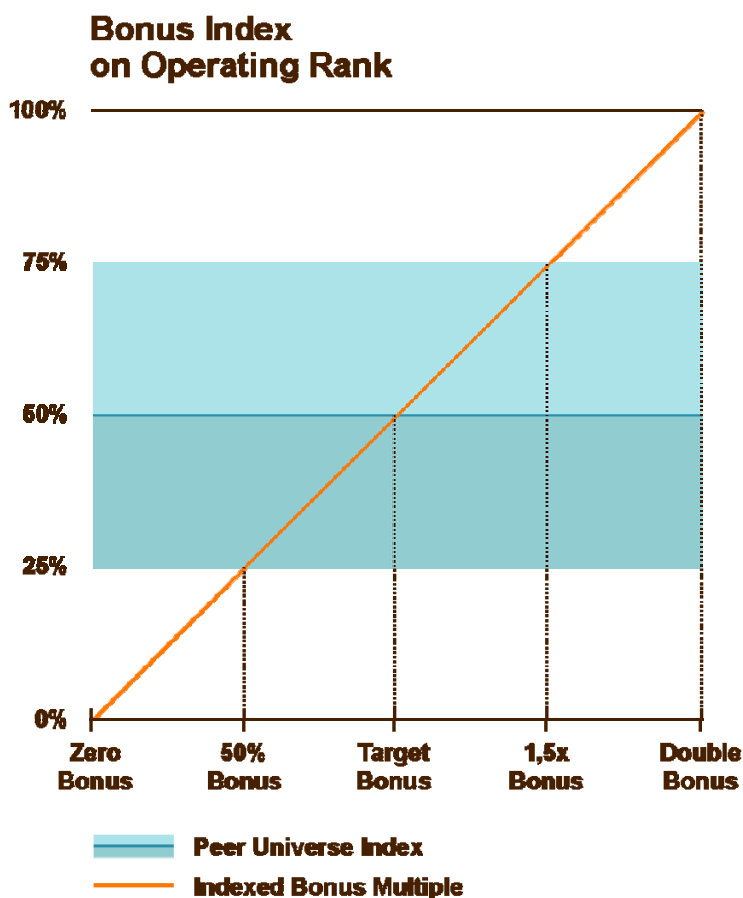
6 Bonus Calculation

Since Operating Ranks are independent of external factors (including investor sentiment) and a standardized performance measure, deserved bonus levels are directly derived from the Operating Rank. The Bonus Index uses the following formula for calculating the Bonus Multiple.

$$\text{Bonus Multiple} = 2 * \text{Operating Rank on } \Delta\text{EBITDA in \% of sales}$$

The Bonus Multiple is the factor by which individually agreed target bonuses (e.g. typically expected or average historic bonus levels) are multiplied to obtain the actually deserved indexed bonus. For instance, if the agreed target bonus is CHF10'000 and the Bonus Multiple is 1.2, the deserved actual bonus is CHF12'000 (1.2 times CHF10'000). This bonus formula pays no bonus for the worst performance, average or expected (1.0 x bonus) bonuses when the Operating Rank is 50%, and 2.0 times bonus when the Operating Rank is 100%.

The following graph illustrates how Operating Rank is converted into Bonus Multiples:



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7 Customization of the Bonus Index

Bonus Index Inside customers may replace the Bonus Multiple formula with another previously agreed formula depending on their strategic goals and their compensation philosophy. For instance, a growth focused company may pay 100% bonus at an Operating Rank of 75%. Another company that pays bonuses only for outperformance might decide not to allocate a bonus below an Operating Rank of 50%. The bonus formula is typically determined by the board of directors at the beginning of the performance measurement period. In case it is desired by the company, this company specific indexing formula is used for calculating the bonus multiplier in the Obermatt Bonus Index.

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VI. About Obermatt

Obermatt is an international financial research company focused on indexing corporate operating performance to measure, rank and compare key financial ratios standardized and independent of external factors.

Obermatt helps corporations, private equity firms and investors add value for their shareholders and to their portfolios through products that make innovative use of indexed performance measurement. The company is employee owned and has offices in Los Angeles, USA and is headquartered in Zurich, Switzerland.

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