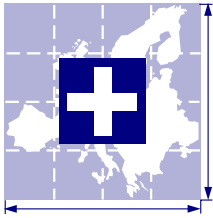


23 May 2005



Dental Implant Update

Upside to Industry Growth Rate Remains Despite Emergence of New Competitive Pricing Model

**Medical Technology
Health Care Distribution & Technology**

Contributors

Author

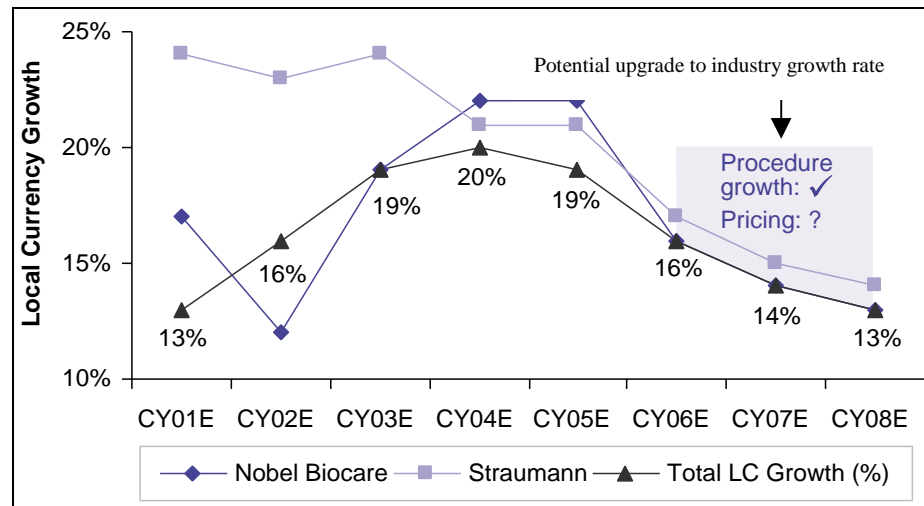
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Highlights of This Issue

- In this note we provide feedback from our **Dental Implant Session**, which we held this week on the topic: "Outlook for Low Priced Dental Implants & Impact on Industry Dynamics: Q&A Session with Dr. Gerald Niznick".
- As a reminder, the **dental implant industry** is one of the fastest growing areas of Medical Technology and is currently growing at ~20% in constant currency, driven by strong unit growth of 17-20% as well as stable pricing of 0-3%.
- While we remain positive on the dental implant sector and see **room for potential upgrades to market growth rates** in CY06E (~16%), CY07E (~14%) and CY08E (~13%), which would equally benefit Nobel Biocare and Straumann, we believe the **probability of this happening has slightly decreased** as a result of new competition entering the marketplace as well as some branded implant manufacturers being potentially too slow to show sufficient amount of product differentiation.

Chart 1: Worldwide Dental Implant Market – Local Currency Growth Forecast



Source: Merrill Lynch estimates

- While the emergence of new competition in the form of "me-too" discount dental implant manufacturers is nothing new and should be well understood by the investment community (we have cited this many times before), we believe the **potential emergence of discount operators with a more innovative product approach is a new development**. In our view the latter category would include U.S. based *Implant Direct*, owned by Dr. Gerald Niznick, who will come-off a non-compete clause with Zimmer on 8 January 2006.

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Refer to important disclosures on pages 4 to 5. Analyst Certification on page 3. Price Objective Basis/Risk on page 3.

■ Product Portfolio

- The proposed new implant system from Dr. Niznick's new company, *Implant Direct*, will be offering the industry standard 'one-stage' and 'two-stage' tapered screw implants with internal connections and a rough surface. In addition **the system will incorporate new products that directly compete with implants most recently introduced by the industry leader, Nobel Biocare and are still missing from the product portfolio of other industry leading companies** like Straumann, Biomet (3i), Dentsply (Friadent) and Zimmer Dental. Specifically, the product portfolio includes a 'one-piece implant' with a straight head (competing design to *Nobel Direct*), as well as a one-piece implant with an angled head and a scalloped shoulder (competing design to *Nobel Perfect*); in addition the system incorporates a micro-thread design that has been a useful differentiating feature for AstraTech. We feel that this somewhat unique selling proposition is enhanced, by offering these partially differentiated products at prices that are expected to be 1/3rd of those charged by the premium companies.
- At this stage we have no evidence as to whether *Implant Direct* may be infringing on any patents that may be proprietary to the premium manufacturers. Dr. Niznick reports that he has filed patents on all his new devices, including the new internal connection that accepts Nobel's abutments. Although Dr. Niznick appears confident his patents do not infringe, we would not be surprised if the incumbents chose to use legal tactics to delay the roll-out of Dr. Niznick's products.

■ Distribution

- It is understandable that the reduced prices for Dr. Niznick's implants can only be achieved by adopting a **different business model**, which primarily uses the internet for distribution. While we acknowledge that orthopedics is a 'people business', where there is typically a strong bond between the surgeon and the sales consultant, the **industry dynamics in dental implantology are quite different**. Given that the placement of a dental implant is far simpler than doing a hip and knee reconstruction, there is far less involvement between an experienced oral surgeon / dentists and the sales consultant.
- While we do acknowledge that a sales force is imperative for growing the market by training and education new dentists who have never practised dental implantology before, we believe it is far less important for the existing high volume users. Hence, **we would not be surprised if an internet based distribution approach is a sound way of selling implants**; as a matter of fact we understand Nobel Biocare has seen encouraging results from its own internet portal for the selling of dental implants.

- Furthermore, while one should not underestimate the enormous goodwill and reputation the premium manufacturers like Nobel Biocare and Straumann have with their customers, one should not forget that reliance on clinical data as factor for product differentiation is likely to carry less weight moving forward for two reasons:

1. **Implant failure rates are low for a whole range of implant systems** - clinical data from a whole range of dental implant systems suggest that implant failures rates are very similar at ~5% or less, which in our view would suggest to the high volume and more experienced practitioner that there is no material difference on the implant survival rate between implant systems. This, however, may change should premium companies be able to substantiate claims of faster rates of osseointegration with the roughened surfaces; some companies have been able to do this better than others (e.g. Nobel Biocare). Straumann could be in the process of doing this with its pending *SActive* surface. As a reminder, implant manufacturers, in general, are attempting to differentiate their products on the claim of faster integration by comparing their newer surface with their prior surface, rather than entering into comparisons with the competing products; and
2. **New products have no long-term data** – in an effort by premium companies to differentiate themselves they are forced to roll-out new innovative products, which by their nature do not have long-term clinical data. This effectively can erode one of their strongest competitive advantages that these companies have historically relied on in securing implant selling price stability.

- As a result we would not be surprised if a well established customer base (which we believe would be the target market for an internet selling distribution approach) may find it compelling to order innovative and well priced products through the internet. As a matter of fact, the **cost saving opportunity for a high volume practitioner could be significant** as highlighted in Table 1 below:

Table 1: Annual Cost Savings with Dr. Niznick's System

Items	
Procedures per year (#)	100
Implants per procedure (#)	2
Price for Premium Solution	US\$450
Price of Dr. Niznick's Solution	US\$150
Saving per implant	US\$300
Total savings per year	US\$60,000

Source: Merrill Lynch estimates

- According to our calculation we estimate that a high volume oral surgeon/dentist could potentially save (i.e. enhance his/her profitability) US\$60,000 per year using the Dr. Niznick's system.

- We suspect advertisements in dental journals/literature on the Dr. Niznick's system in conjunction with his reputation and state of the art dental implant facility (i.e. ex Zimmer Dental) could be sufficient to raise surgeon/dentist interest. Even if potential customers do not see Dr. Niznick's implants as an alternative to the premium manufacturers, we believe it may raise the question amongst the customer base of company's like Nobel Biocare and Straumann as to why they need to charge 300% more; **this in itself could be used as leverage for future rebates.**

■ Manufacturing

- We understand that Dr. Niznick's new company, operating in his Los Angeles factory he built in 1994 and rented to Zimmer Dental from 2001 through 2004, has acquired 20 new CNC Screw Machines with 6 more on order for delivery before the end of the year (26 in total, the factory has capacity for 30 machines). Dr. Niznick has rehired many of his former employees and claims that 10 machines alone will be able to produce 600,000 implants per year using lights-out, 24/7 production that he and his team are committed to achieve. The remaining 16 machines will be used for producing ancillary products such as abutments and drills.
- According to our calculations, we estimate that 600,000 implant units equate to 20-25% of the worldwide annual market. We doubt, however, that *Implant Direct* will be able to show sufficient demand to run at capacity.

■ Conclusion / Recommendation

- We continue to **remain positive on the dental implant industry**, but believe that **the probability of material upgrades** to our **industry growth forecast** for CY06 (~16%), CY07 (~14%) and CY08 (~13%) **has slightly decreased** on the basis that the **pricing environment may not be as robust as we previously thought** due to **emergence of discount operators using an innovative product orientated approach**. Nevertheless, many of the underlying compelling fundamentals remain in tact, which includes a highly under penetrated market estimated at ~15%.
- Of the premium companies we believe **Nobel Biocare (NBCHF; Buy: C-1-7; CHF244)** continues to be the best positioned organisation driven by an innovative product portfolio as well as a strong focus on training and education, which should allow it to get a greater slice of new customers. With respect to **Straumann (SAUHF; Neutral: B-2-7; CHF247.6)** we believe their R&D department has been too slow in rolling out new and innovative products as well as placing too much reliance on clinical data for product differentiation. Nevertheless, we think Straumann may have the benefit of seeing a re-acceleration in the top line growth as result of its high exposure to the German market, which should improve in 2H CY05 as a result of the recent reimbursement changes.

Price Objective Basis & Risk

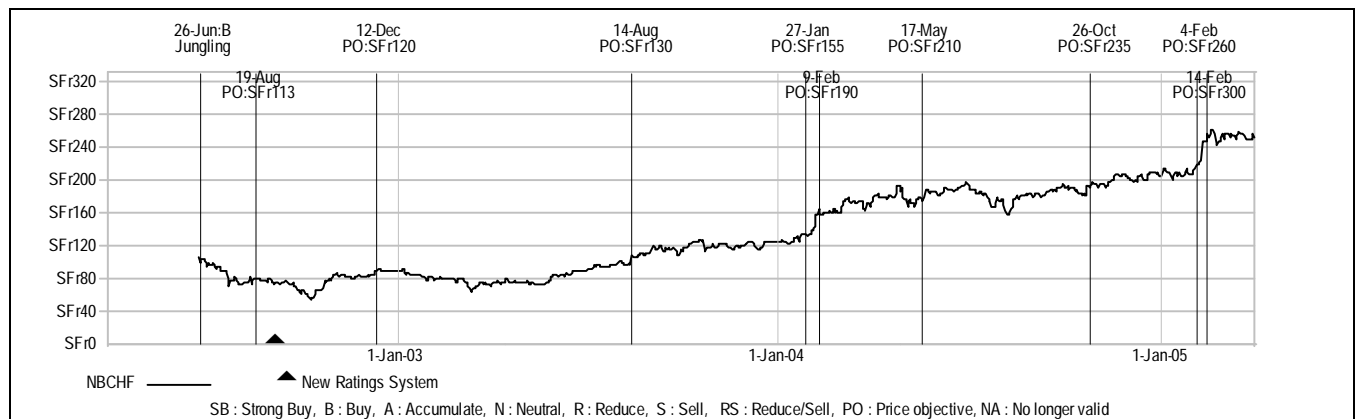
For **Nobel Biocare** our 12-month price objective equates to CHF300 per share, which is in line with our DCF valuation which uses a WACC of 8% and a terminal growth rate of 3.5%. Risks to our valuation and price objective are a slowing dental implant market, inability to maintain greater than 20% local currency sales growth in FY05 as well as foreign exchange.

Analyst Certification

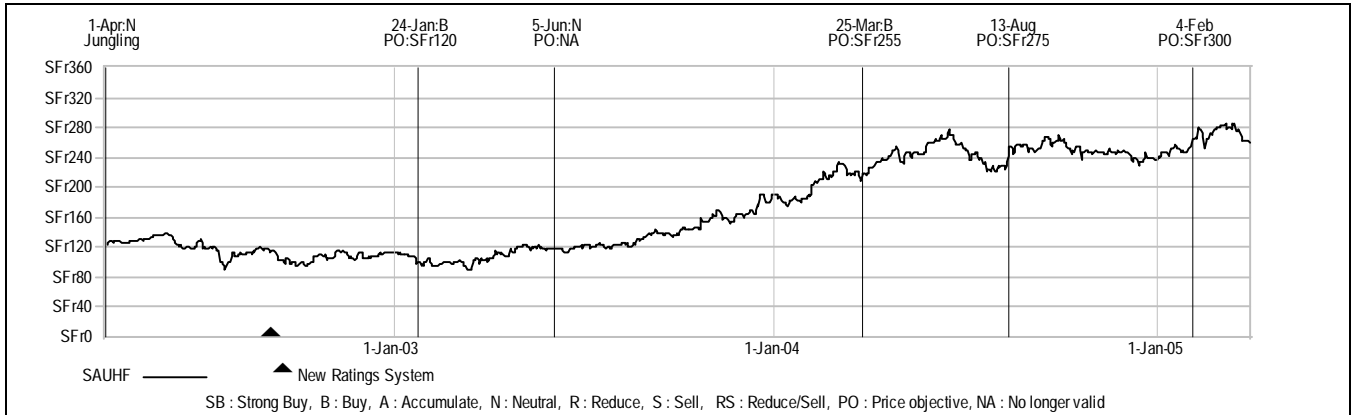
I, Michael Jüngling, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

Important Disclosures

NBCHF Price Chart



From 8 Dec. 2001 to 6 Sep. 2002, the Investment Opinion System included: Strong Buy, Buy, Neutral, and Reduce/Sell. On 6 Sep. 2002, Strong Buy and Buy ratings became Buy, and Reduce/Sell became Sell. Any exceptions to these rating revisions are reflected in the chart. All price objectives for Neutral and Sell rated securities established before 6 Sep. 2002 were eliminated as of that date. The current Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark Grey shading indicates the security is restricted with the opinion suspended. Light Grey shading indicates the security is under review with the opinion withdrawn.

SAUHF Price Chart


From 8 Dec. 2001 to 6 Sep. 2002, the Investment Opinion System included: Strong Buy, Buy, Neutral, and Reduce/Sell. On 6 Sep. 2002, Strong Buy and Buy ratings became Buy, and Reduce/Sell became Sell. Any exceptions to these rating revisions are reflected in the chart. All price objectives for Neutral and Sell rated securities established before 6 Sep. 2002 were eliminated as of that date. The current Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark Grey shading indicates the security is restricted with the opinion suspended. Light Grey shading indicates the security is under review with the opinion withdrawn.

Investment Rating Distribution: Health Care Group (as of 31 March 2005)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	81	41.54%	Buy	32	39.51%
Neutral	103	52.82%	Neutral	23	22.33%
Sell	11	5.64%	Sell	1	9.09%

Investment Rating Distribution: Global Group (as of 31 March 2005)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	1060	39.91%	Buy	368	34.72%
Neutral	1379	51.92%	Neutral	403	29.22%
Sell	217	8.17%	Sell	44	20.28%

* Companies in respect of which MLPF&S or an affiliate has received compensation for investment banking services within the past 12 months.

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