

## ADERANS

8170 Tokyo Stock Exchange  
First Section

25-Jul.-14

Important disclosures  
and disclaimers appear  
at the end of this document.

FISCO Ltd. Analyst  
Hiroyuki Asakawa

### ■ Likely to be revalued based on growth of the Japanese market for women's wigs and overseas business

Since its foundation, Aderans has remained the top provider of wigs in Japan. The company now produces and sells wigs and offers hair growth and hair transplantation services globally. In Japan, it produces custom-made wigs under the brand names of Aderans and Ladies' Aderans, produces ready-made wigs for women under the Fontaine brand name, and provides a hair transplantation service under the Bosley brand name in US and overseas. Also outside Japan, it produces non-surgical hair replacement, hair transplantation, and hair loss prevention services under the Hair Club brand name (see company's English language website).

For nine years from the fiscal year through March 2002, i.e., FY3/02, the company's earnings declined, in part, due to external factors, such as the terrorist attack in the U.S. in September 2001, the global financial crisis that followed the Lehman Brothers bankruptcy in September 2008, and the Great East Japan Earthquake in March 2011. However, this decline ended in FY2/11, when the company suffered losses for the second year in a row. In the following three fiscal years, its profits grew. Even so, its profits in FY2/14 were about one-third of its peak profits. The main point of interest to investors now is the business strategy the company plans to implement to regain profit growth.

Prospects for the wig market in Japan are not good. Due to changes in the age composition of the Japanese people and to changes in their mentalities, the Japanese market for men's wigs has been shrinking, and it will probably continue to shrink. In fact, it may decrease at a faster rate than it has to date. In contrast, the Japanese market of women's wigs has been growing steadily and is likely to continue to do so, but not enough to offset the decline in the men's wig market unless business operators can find a new application for women's wigs or a new market segment to cater to.

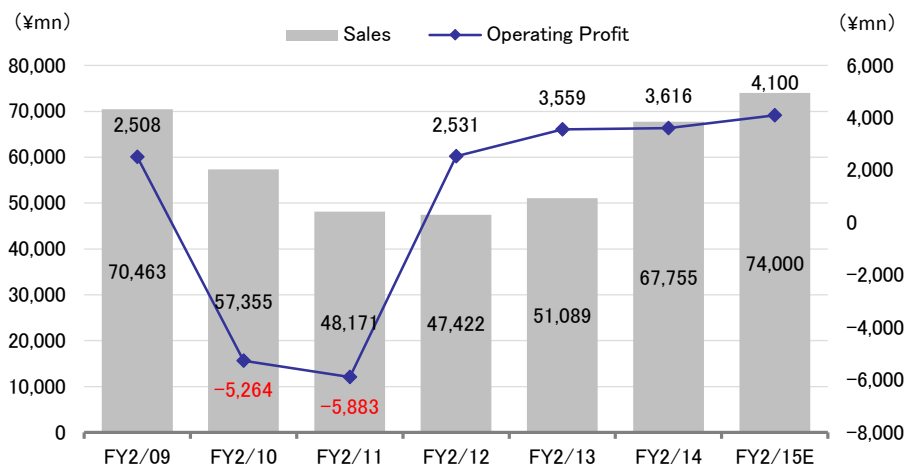
Aderans is often compared to ARTNATURE (7823) in terms of business content and attractiveness as an equity investment. Reflecting the weak earnings performance of Aderans, ARTNATURE has been the preferred investment, but given the prospects for the Japanese wig market cited above, Aderans may become a more attractive investment because ARTNATURE leads the market for men's wigs but Aderans leads the market for women's wigs and the overseas market for wigs, which has strong growth prospects. Most likely, Aderans will maintain its lead in these markets.

Aderans considers earnings before interest expense, taxes, depreciation and amortization expenses (EBITDA) the most important measure of business performance. In its business plan for FY2/15 – FY2/17, the company aims for an accumulated EBITDA of ¥26.3bn or more. Its historical high EBITDA was achieved in the three fiscal years in the early 2000s, but the operating environment for the Japanese wig industry and market shares have changed so much since then that this period may not be an appropriate basis for comparison. A more appropriate basis may be the three fiscal years through FY2/08, before the Lehman shock. In those three years, the company's accumulated EBITDA was ¥29.4bn. Thus, over the next three fiscal years, the company aims to generate about 90% of the EBITDA it amassed in FY2/06 – FY2/08. If it achieves this goal, it will acquire a large amount of cash. If it invests this cash intelligently, it could regain the top name recognition and investment attractiveness in the industry.

## Check Point

- Most products made in-house, ensuring cost control and high quality
- Purchase of HC (USA) Inc. boosted sales substantially, while cost cuts and yen depreciation lifted profits
- Aiming for profit growth by increasing market share in Japan and expanding overseas business

Consolidated Sales and Operating Profit, FY2/09 – FY2/15E



Note: FY2/15 estimates are by the company  
Source: Company

## Company Overview

**Early entry into the Japanese market for women's wigs and overseas markets formed the basis for current strengths**

### (1) History

Aderans was founded in 1968 by current president Nobuo Nemoto as a specialized provider in custom-made wigs for men. And, then the company entered into women's market when it bought Fontaine Co., which had been selling the Fontaine brand of ready-made wigs for women since 1970 as a subsidiary of Kaneka Chemical Co., now called Kaneka Corp. (4118).



## ADERANS

8170 Tokyo Stock Exchange  
First Section

25-Jul.-14

### History

Sep. 1968	Started business
Mar. 1969	Established as a company
Mar. 1970	Mr. Nobuo Nemoto became president. Established Fontaine Co. to sell the Fontaine brand of ready-made wigs for women, which was made by Kaneka Chemical Co., now Kaneka Corp. Kaneka Chemical Co. bought Fontaine Co. in August 1970*.
Jul. 1979	Established Aderans Corporation of America
Aug. 1985	Took a controlling equity interest in Fontaine Co., making it a subsidiary
Sep. 1985	Registered shares on Japan's over-the-counter equity market
Apr. 1990	Started operating custom-made wig salons for women only
Jan. 1992	Established Aderans Europe
Mar. 1992	Made the Comaflex companies in France, Germany and Belgium subsidiaries
Nov. 1994	Established Aderans Holding Co., now Aderans America Holding Co.
Dec. 1994	Registered shares of Fontaine Co. on Japan's over-the-counter equity market*
Aug. 2001	Made Bosley Medical Institute (now Bosley) and Bosley Medical Canada Co. subsidiaries
Jan. 2002	Established Aderans Philippines
Sep. 2007	Aderans renamed Aderans Holdings Co., and Aderans Co. reestablished as an operating company.
Sep. 2010	Aderans Holdings merged Aderans Co. and Fontaine Co. and renamed the merged company Unihair Co.
Feb. 2011	Mr. Nobuo Nemoto becomes president and chairman of Unihair Co.
Jul. 2011	Unihair Co. renamed Aderans Co.
Sep. 2012	Made Le Nouvelle Espace Beauté in France a subsidiary
Apr. 2013	HC (USA) Inc., of the US, made a subsidiary

\*History of Fontaine Co., Ltd.

Source: Fisco Inc. from company information and other materials

While expanding its domestic operations, Aderans entered overseas markets earlier than most of its competitors. In 1979, it set up its first overseas subsidiary, Aderans Corporation of America. In 1986, it established Aderans Thai in Thailand as its first overseas production unit.

Aderans's businesses grew strongly in the 1990's. In Japan, the company developed salons to sell custom-made wigs to women. These salons formed the basis for the company's current top share of the Japanese market for women's wigs. After establishing Aderans Europe, the company bought local wig sales companies in most main European countries to build a business foundation in that continent. Because the market structure and brands vary by country, the company decided that it could more effectively grow in Europe through such acquisitions than through independent development. In North America, Aderans resumed its investment in the late 1980's, buying local wig wholesalers. In the 1990's, it accelerated this investment, purchasing such companies as New Concept and General Wig. These efforts supported strong growth through the 1990's and early 2000's, and company profits peaked in FY3/02, while sales peaked in FY2/03.

After these peaks, sales and profits declined, primarily because the company pursued businesses other than wigs, the growth of the wig market slowed, and the company's share of the wig market fell. The company restructured its operations in Japan and overseas to regain growth, but these efforts were stymied by the economic impact of the global financial crisis after the Lehman shock and other factors. Thus, the company suffered large losses in FY2/10 and FY2/11. In FY2/12, it returned to profitability, and in the ensuing two fiscal years, its profits grew.

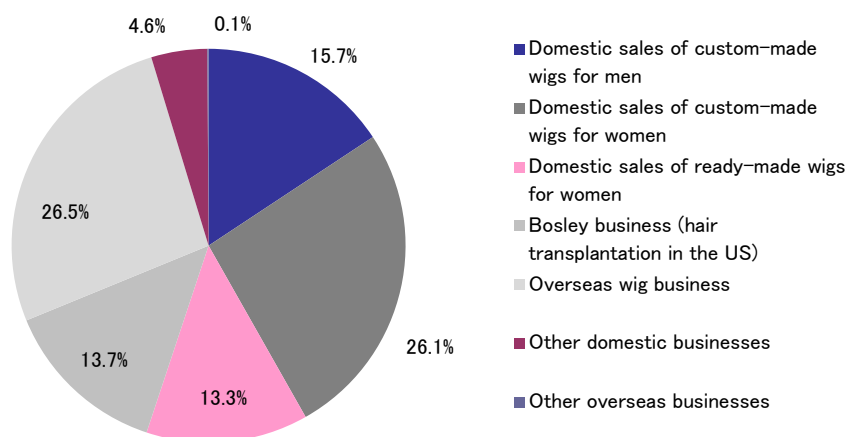
## Pursuing a wide range of hair-related businesses in Japan and overseas; all businesses increased sales in FY2/14

### (2) Description of Businesses

The Aderans and Fontaine brands are well-known in Japan, but the company's business structure and profit structure are somewhat complicated because of brand histories and frequent changes in the categories of information released by the company.

The company's main product is wigs. The wig market in Japan is divided by gender and by product specification, i.e., ready-made or custom-made. Aderans also offers hair growth service and barber and hair salon services and sells hair care products, such as shampoo. The company includes in its Aderans business the sale of all custom-made wigs in Japan and related services, for both men and women. Its Fontaine business sells ready-made wigs for women in Japan. The Bosley business is the hair transplantation service conducted by subsidiary Bosley, Inc. in the US. The overseas wig business handles all other overseas business. The other category includes electronic commerce, medical-use wig business, and wholesale sales of ready-made wigs for women through beauty supply route.

In FY2/14, sales in the Aderans business grew 10.1% year-on-year (y-o-y) to ¥28,234mn, sales in the Fontaine business increased 5.3% to ¥8,987mn, sales in the Bosley business rose 10.9% to ¥9,320mn, and sales in the overseas wig business surged 150% to ¥17,992mn, boosted by the purchase of HC (USA) Inc., of the US. Revenue from domestic business rose from a recent low and revenue in the Bosley business increased due to yen depreciation.

**Breakdown of FY2/14 Sales by Product and Market**


Source: compiled by Fisco based on company materials

**Breakdown of Consolidated Sales and Operating Profit by Business, FY2/13 – FY2/14**

	FY2/14 (¥mn)		
	FY2/13 Results	FY2/14 Results	y-o-y
<b>Sales</b>	<b>51,089</b>	<b>67,755</b>	<b>32.6%</b>
Aderans business	25,644	28,234	10.1%
Fontaine business	8,536	8,987	5.3%
Bosley business	8,401	9,320	10.9%
Overseas wig business	5,214	17,992	245.1%
Other	3,293	3,219	-2.2%
<b>Operating profit</b>	<b>3,559</b>	<b>3,616</b>	<b>1.6%</b>
Aderans business	6,793	7,703	13.4%
Fontaine business	3,168	2,051	-35.3%
Bosley business	764	457	-40.2%
Overseas wig business	-293	-1,234	-
Other	-259	-476	-
<b>Subtotal</b>	<b>10,173</b>	<b>8,501</b>	<b>-16.4%</b>
<b>Adjustments</b>	<b>-6,614</b>	<b>-4,884</b>	<b>-</b>

Source: Japanese financial statements

## ■ Business Details

**In wigs for men, the customer repeat rate at Hair Club is high; the challenge is to acquire new customers**

**Three major businesses: domestic wig business for men, domestic wig business for women, and overseas businesses (Bosley and wig business)**

Aderans' s businesses can be categorized as domestic wig business for men, domestic wig business for women, and overseas businesses. The company also breaks down its domestic wig businesses by ready-made and custom-made, but all ready-made wigs are for women, so it is easier to understand the company' s businesses by the simple categorization above. This categorization also simplifies comparison with Aderans' s main listed competitor, ARTNATURE.

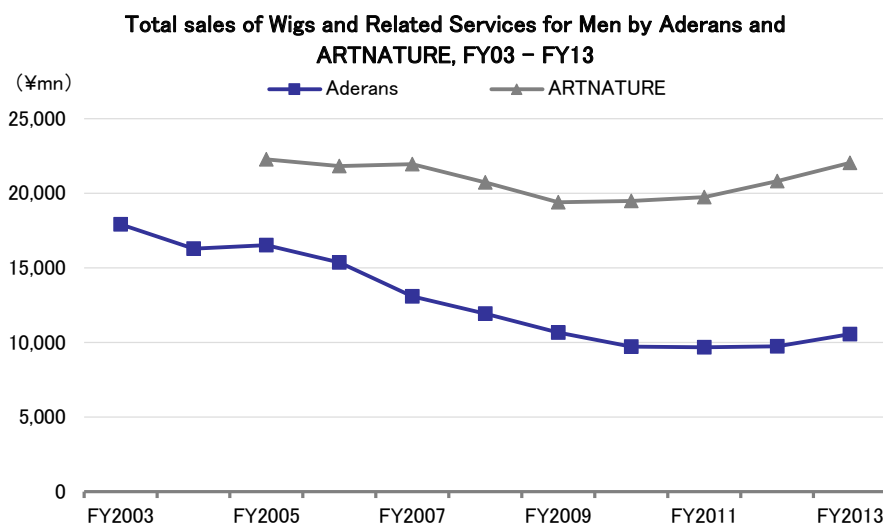
**With a market share of about 15%, Aderans ranks third**

### (1) Domestic wig business for men

The domestic wig business for men comprises the Aderans brand of custom-made wigs and related services, such as hair growth service, barber shops and hair salons. In FY2/14, sales from the domestic wig business for men increased 8.4% y-o-y to ¥10,554mn. Of these sales, about 65% was from wigs and 35% was from other products and services. In this business, including related services, the company holds an approximately 15% share of the Japanese market, ranking it third. ARTNATURE holds the top share, of about 30%, and Reve21 is second with a share of about 20%.

### ○Lost market lead over past 10 years

Over the past 10 years, both Aderans and ARTNATURE have seen a downtrend in earnings, but the drop at Aderans has been greater than that at ARTNATURE, and profit at Aderans recovered later than profit at ARTNATURE. These trends help to explain why ARTNATURE displaced Aderans as the market leader.



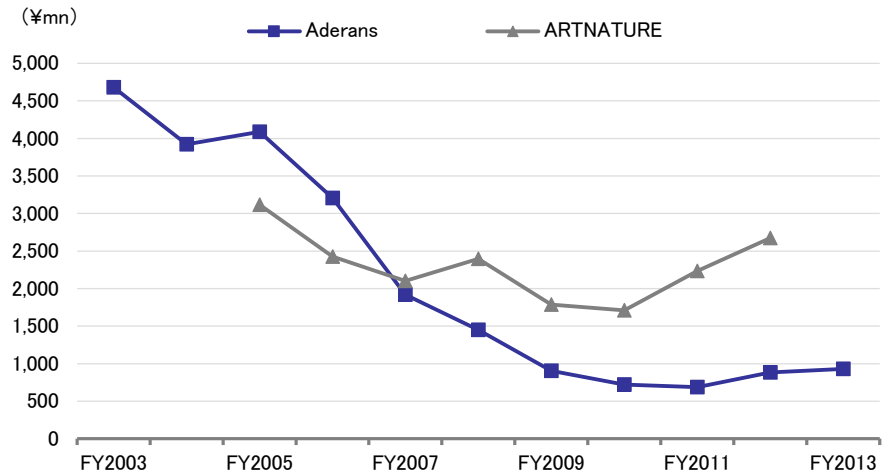
Source: compiled by Fisco from company materials

## ADERANS

8170 Tokyo Stock Exchange  
First Section

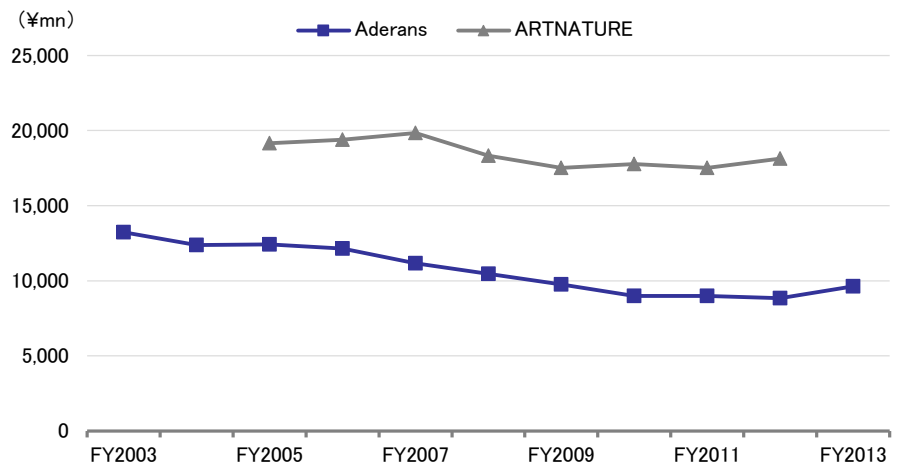
25-Jul.-14

### Sales to new customers of Wigs and Related Services for Men by Aderans and ARTNATURE, FY03 – FY13



Source: compiled by Fisco from company materials

### Sales to repeat customers of Wigs and Related Services for Men by Aderans and ARTNATURE, FY03 – FY13



Source: compiled by Fisco from company materials

#### ○155 salons nationwide

Aderans directly operates 155 salons selling wigs and related goods and services for men and women. These salons first consult with a customer, and based on the condition of clients' hair and clients' aspirations, the salons recommend the most appropriate good or service from a wide selection. ARTNATURE follows the same procedure. Thus, Aderans and ARTNATURE differ little in sales method and strategy.

#### ○Services to promote and maintain healthy hair growth a vital component for men business

Most men who use wigs start to do so in their 30's, when they still have some of their own hair. To prolong the life of their own hair, many men combine the hair growth service with the use of a wig. Many men who have just begun to notice their thinning hair use only the hair growth service, as the psychological barrier to such use is low. However, many of these men ultimately buy wigs. Therefore, Aderans and its competitors invest in the development of a hair growth service.



## ADERANS

8170 Tokyo Stock Exchange  
First Section

25-Jul.-14

### ○Most men's wigs sold outright, but some sold through club membership

Aderans sells most of its men's wigs as simple sales, but in the 2000's, the company started selling them through membership in its Fathers Club. In 2010, the company changed the name of this club to Hair Club. The contract for membership in this club is similar to an automobile lease contract. For an annual fee of about ¥200,000 (¥15,220 – ¥20,293 per month), a member gets to use a custom-made wig with no additional cost for maintenance. Other wig makers also sell through club memberships, but Hair Club membership is cheaper than membership in most other clubs because it charges no initial fee or maintenance fee. The repeat sale rate in the Hair Club, i.e., the proportion of members which joins the club for more than one year, is high. This is one of the main strengths of Aderans. Currently, about 30% of the company's sales of custom-made wigs are made through the Hair Club.

### ○Difficult to distinguish wigs based on quality because sales reflect individual preferences more than quality

In general, the quality of wigs made by Aderans and other leading producers is high. Most of Aderans's wigs are made of nylon resin hair that is surface-treated to resemble natural hair in such traits as moisture absorbency. However, it is difficult to differentiate wigs based on their similarity to natural hair because wig purchasers or users often choose a wig based on individual preferences rather than quality.

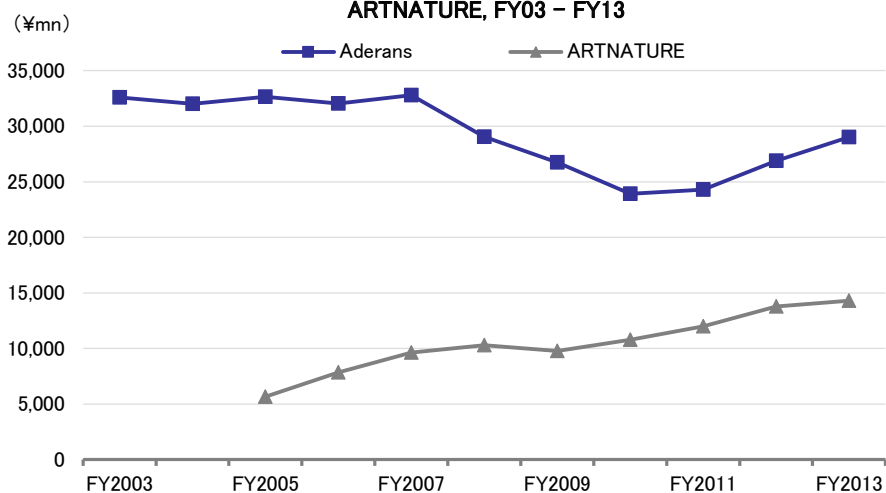
### ○No concrete strategies to attract more new customers, which is the lifeline of the men's wig business

As shown in the graph earlier, Aderans has lagged behind rival ARTNATURE in the sale of men's wigs over the past decade. Most notably, Aderans's sales to new customers fell from almost ¥5bn 10 years ago to just over ¥0.5bn in FY2/14. Some wig users ultimately stop using wigs, so it is important to acquire new customers to maintain sales and profit growth in the wig business. Aderans is analyzing the reasons for the decline in its sales to new customers and claims to be designing a strategy to deal with this problem, but it has not clarified the details of this strategy, so it is impossible to judge its probable success.

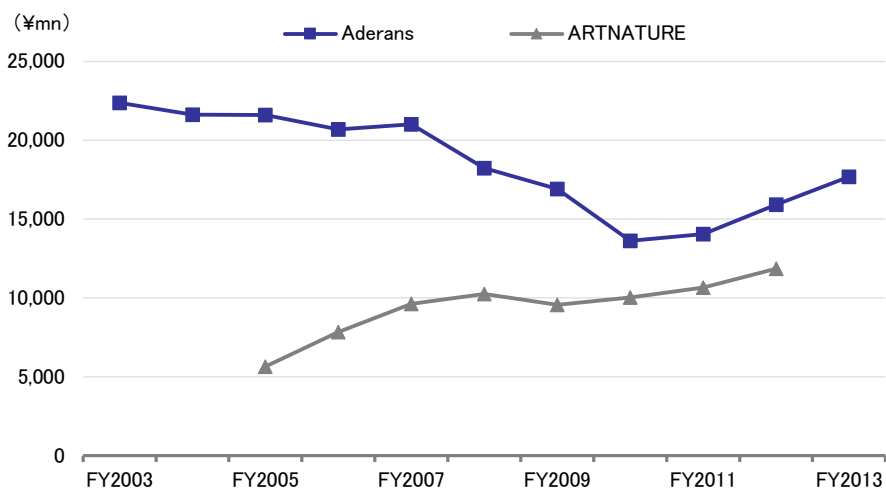
## The pioneer for women's wig, Aderans remains the market leader, with a 40% share

### (2) Domestic wig business for women

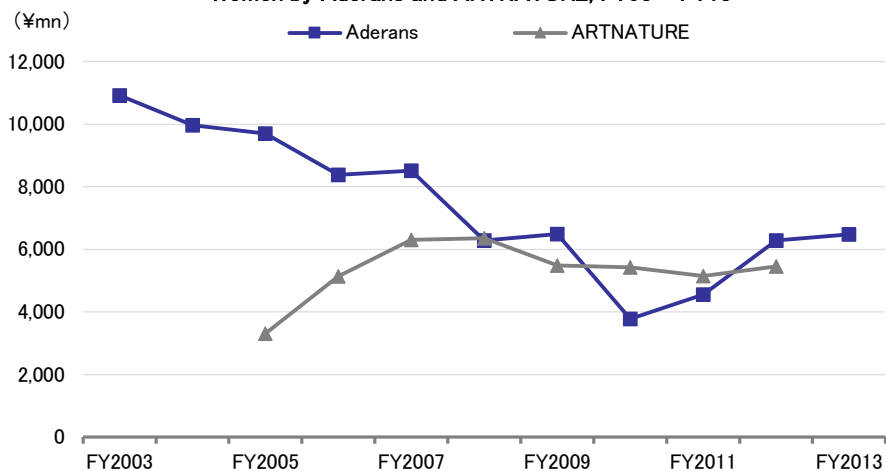
Aderans started selling wigs for women in 1970, just after its establishment, when it set up Fontaine Service. to distribute the Fontaine brand of ready-made wigs produced by Kaneka Chemical Co. In 1985, Aderans made Fontaine Co. a subsidiary. In 1990, Aderans started developing salons dedicated to the sale of custom-made wigs for women. Thus, the company pioneered the sale of both ready-made and custom-made wigs for women in Japan and remains the market leader. In FY2/14, Aderans's sales of women's wigs, including ready-made wigs, custom-made wigs, and related services, such as the hair growth service, grew 9.1% y-o-y to ¥26,666mn, giving it an estimated market share of about 40%. ARTNATURE was second, with an estimated share of 20%. With a combined market share of about 60%, Aderans and ARTNATURE dominate the market for women's wigs more than they dominate the market for men's wigs.

**Total sales of Wigs and Related Services for Women by Aderans and ARTNATURE, FY03 – FY13**


Source: compiled by Fisco from company materials

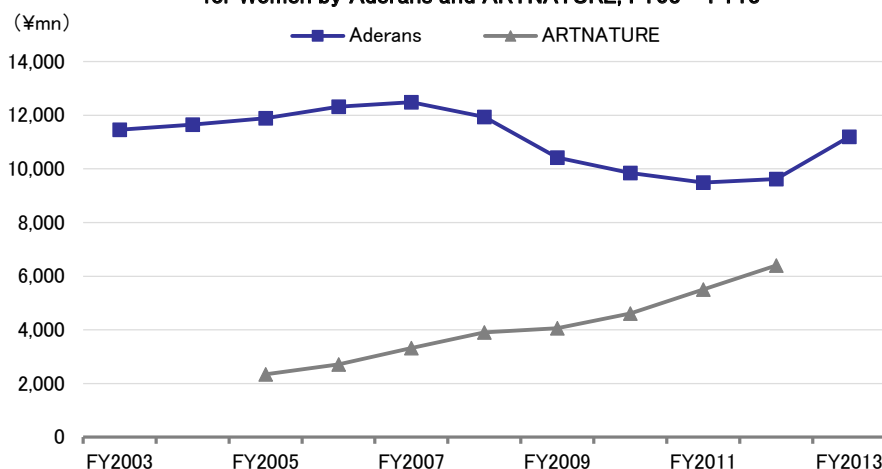
**Sales of custom-made wigs and Related Services for Women by Aderans and ARTNATURE, FY03 – FY13**


Source: compiled by Fisco from company materials

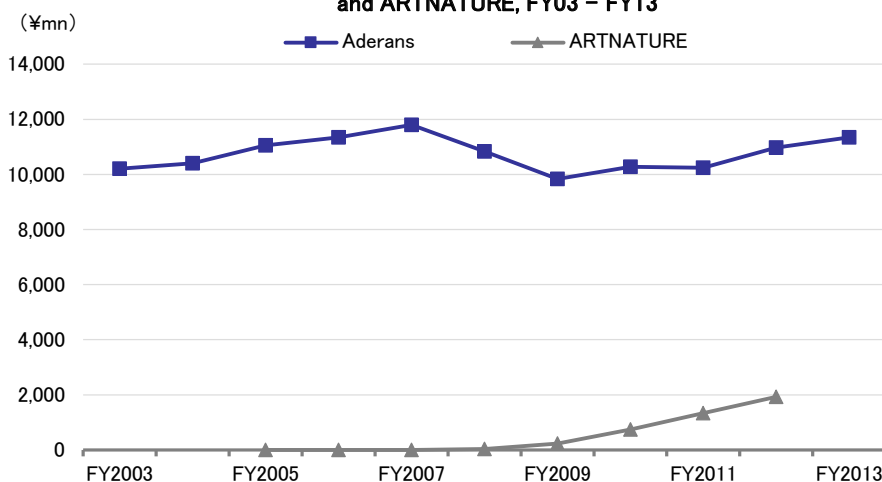
**Sales to new customers of custom-made wigs and Related Services for Women by Aderans and ARTNATURE, FY03 – FY13**


Source: compiled by Fisco from company materials



**Sales to repeat customers of custom-made wigs and Related Services for Women by Aderans and ARTNATURE, FY03 – FY13**


Source: compiled by Fisco from company materials

**Sales of ready-made wigs and Related Services for Women by Aderans and ARTNATURE, FY03 – FY13**


Note: For FY09, which was FY2/10 for Aderans, for sales of custom-made wigs to new customers and repeat customers, Fisco added some amounts to the Aderans business reported by the company.

Source: compiled by Fisco from company materials

**○Women's wig market includes ready-made wigs**

Unlike the men's wig market in Japan, the women's wig market includes ready-made wigs, as well as custom-made wigs. Custom-made wigs for women are sold through consultations at salons operated by Aderans, just as custom-made wigs for men are. However, ready-made wigs are sold by specialized sales staff at corners of department stores and major distribution chains.

**○Average price for custom-made wigs ¥450,000, for ready-made wigs ¥100,000**

The main price range for Aderans's custom-made wigs is ¥400,000 – 500,000, with an average of ¥450,000. The main price range for its ready-made wigs is ¥30,000 – 200,000, with an average of ¥100,000. High prices for custom-made goods are normal, but Aderans's ready-made wigs are also relatively expensive. This pricing indicates that its ready-made wigs, like its custom-made wigs, are targeted to middle-aged or older women having anxieties about their hair.

**○Market expansion is the calling of a market-leading company**

As mentioned earlier, the women's wig market is likely to grow for a certain period of time because it is less adversely affected by the change in the age distribution of Japan's population than the men's wig market. However, the women's wig market will start to shrink in the near future. Between men and women there are great differences in the need to combat thin hair. The psychological resistance to measures against thin hair also differs greatly by gender. It is vital that Aderans takes advantage of these differences to expand the demand for wigs, including fashion wigs, and develops wigs to satisfy this new demand.

**○Aderans could resume sales of low-priced wigs to stimulate demand**

Aderans used to sell low-priced fashion wigs and hair pieces to young women at directly operated stores. It no longer operates stores for such sales, which are currently made through the company's electronic commerce website and at some stores operated by Aderans. The scale of these sales has been declining. The company probably had good reasons for withdrawing from this market segment, but it seems that the company could stimulate overall market demand by re-entering it.

## **Concentrating on the North American market, Aderans overseas operations have acquired local companies producing ready-made wigs and offering hair transplantation**

**(3) Overseas businesses****Development of overseas business on the right track though challenging to be successful**

We believe that Aderans's strategy of developing overseas business is reasonable, given the high probability that the Japanese market for men's wigs will continue to shrink. To date, however, the company's overseas businesses have not increased their profits, in part, because Aderans has not been actively involved in their operations. Despite such failures overseas in the past, the company continues to expand its overseas business. Unlike the Japanese wig market, in the overseas wig market, no competitor has invested heavily in advertisement to expand its business. Aderans should be able to grow overseas through its active PR activities. With the recent acquisition of HC (USA), Inc., of the US, Aderans is prepared to increase its men's wig business in the US using the same strategy used in Japan. Furthermore, the US market for custom-made wigs for women is untouched, so it offers great growth potential.

**○North America as main overseas target**

The overseas strategy of Aderans aims to expand business in North America, Europe and China. The most important market for the company in terms of sales is North America, so this report focuses on that market.

**(i) Overseas operations until FY2012**



## ADERANS

8170 Tokyo Stock Exchange  
First Section

25-Jul.-14

### History of overseas operations development

Jul. 1979	Established Aderans Corporation of America
Jun. 1987	Made International Hair Goods Co., of the US, a subsidiary
Mar. 1989	Made Rene of Paris, of the US, a subsidiary
Jan. 1992	Established Aderans Europe
Mar. 1992	Made the Comaflex companies in France, Germany and Belgium subsidiaries
Nov. 1994	Established Aderans Holding Co., now Aderans America Holding Co.
Mar. 1998	Made New Concept Co., of the US, a subsidiary
Sep. 1998	Made General Wig Co., of the US, a subsidiary
Aug. 2001	Made Bosley Medical Institute (now Bosley) and Bosley Medical Canada Co. subsidiaries
Jan. 2002	Established Aderans Philippines
Jun. 2002	Established Aderans Research Institute in the US
Aug. 2007	Acquired MHR in the US
Nov. 2009	Established Aderans Hair Goods Co. in the US and merged its five US subsidiaries with this company
Sep. 2012	Made Le Nouvelle Espace Beauté in France a subsidiary
Apr. 2013	Made HC (USA) Inc., of the US, a subsidiary

Source: company materials

#### Acquired companies selling ready-made wigs and providing hair transplantation service

Aderans first entered the US market in 1979, but it failed because it tried to apply Japanese business practices in the US market, which differed completely from the Japanese market in many respects, including size, commercially viable price ranges, and the attitude toward after-sale service. Based on its experience in the market, from the late 1980's, Aderans strengthened its small North American business by purchasing five local companies that sold ready-made wigs wholesale or imported them. In 2001, Aderans purchased Bosley Medical Institute (now Bosley) of the US and Bosley Medical Canada Co., which offer hair transplantation service. In 2007, Aderans acquired MHR Co. of the US, which also provides hair transplantation service.

#### ○North American operations unprofitable

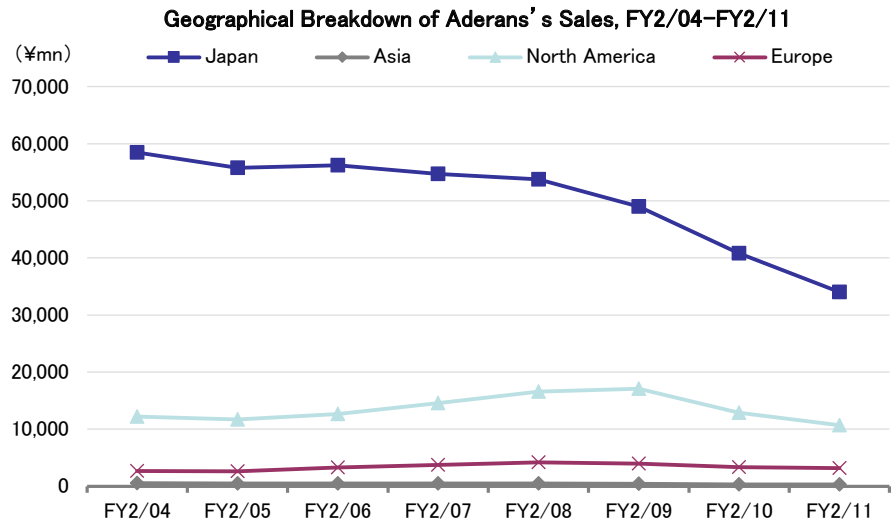
According to the geographical breakdown of its sales and profits in the past (Aderans has not disclosed the breakdown since FY2/12), it generated about ¥10bn of sales in North America, ¥3bn in Europe, and ¥500mn in Asia. However, its operations in North America, though once profitable, were unprofitable, its European operations yielded an operating profit of about ¥100–300mn, and its Asian operations just broke even, after adjustment of internal transactions.

#### ○Restructuring of North American operations completed in 2009–2010

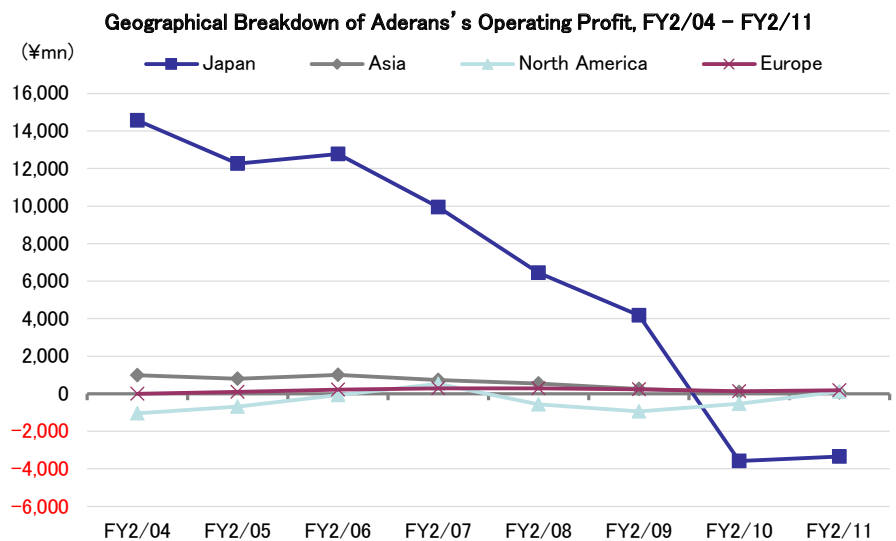
Aderans's operations in North America were hard-pressed by the economic weakness accompanying the global financial crisis after the bankruptcy of Lehman Brothers. Thus, the company restructured these operations. In 2009, it established Aderans Hair Goods Co. in the US and integrated its five US subsidiaries involved in selling ready-made wigs into this new company. In 2010, it acquired MHR Co. and merged this company with Bosley Co. to improve operational efficiency in the hair transplantation business.

#### ○Though small, European operations remain profitable

Aderans's operations in Europe are small in terms of sales, compared with its North American operations. However, its European operations are continuously profitable. Aderans owns subsidiaries in Germany, France, Belgium, the UK, the Netherlands, and Sweden. These subsidiaries sell local brands of goods, mainly ready-made wigs. This is an effective sales strategy in Europe, where market structures, consumer taste and brands vary substantially by country. Aderans production facilities in the Philippines and Thailand supply wigs to the European subsidiaries, and in September 2014, a new plant in Laos is scheduled to start operations. This business model for Europe has allowed European operations to maintain an operating profit margin of about 10%.



Source: Japanese financial statements



Source: Japanese financial statements

## Bosley thriving in ¥100bn US market for hair transplantation, but still room for improvement

### (ii) North American hair transplantation business

**OUS market size for hair transplantation ¥100bn, 20 times larger than the Japanese market**

A hair transplantation is a surgical procedure of removing healthy follicles from the back and sides of the scalp and relocating them to areas of hair loss on the scalp. The Japanese market for hair transplantation is estimated at ¥4 to 5bn, while the US market is estimated at ¥100bn.

## ADERANS

8170 Tokyo Stock Exchange  
First Section

25-Jul.-14

### ○Entered the US hair transplantation business in 2001 through acquisition of Bosley

From the late 1980's to 2000, Aderans acquired companies dealing in and selling wholesale ready-made wigs, but in 2001, Aderans purchased Bosley Medical Institute (now Bosley) of the US and Bosley Medical Canada Co. to complement its ready-made wig business with a hair transplantation business. In 2001, Bosley operated 11 clinics and 33 consultation offices in the US and held an approximately 10% share of the US market for hair transplantation. In September 2001, shortly after the acquisition of Bosley, the US suffered terrorist attacks, which adversely affected Bosley's hair transplantation business for a while. The business subsequently recovered and has remained profitable.

In 2007, Aderans bought US hair transplantation company MHR Co., but this company's business was hurt by the global financial crisis following the Lehman shock, and it suffered operating losses from 2007 through 2009. Therefore, in 2010, Aderans merged MHR into Bosley Inc.

### Results of Aderans's hair transplantation business in the US, 2003 – 2013

	Sales			Operating profit			Op. profit margin
	Bosley	MHR	total	Bosley	MHR	total	
2003	8,220	–	8,220	480	–	480	5.8%
2004	8,220	–	8,220	420	–	420	5.1%
2005	9,060	–	9,060	460	–	460	5.1%
2006	10,797	–	10,797	663	–	663	6.1%
2007	11,086	1,753	12,839	–228	–179	–408	–3.2%
2008	9,516	3,965	13,481	–229	–462	–691	–5.1%
2009	7,629	2,606	10,235	n.a.	n.a.	–220	–2.1%
2010	7,799	750	8,549	n.a.	n.a.	365	4.3%
2011	8,059	–	8,059	657	–	657	8.2%
2012	8,401	–	8,401	764	–	764	9.1%
2013	9,320	–	9,320	n.a.	–	n.a.	–

### ○Bosley's business is growing, but there is room for improvement

Since 2010, Bosley has been profitable, but it could perform better. In 2013, for example, while its sales in yen grew by about ¥900mn y-o-y, in US dollars, its sales dropped almost 10%, from \$104.8mn in 2012 to \$95.1mn in 2013. Furthermore, Bosley's operating profit margin has remained far below targeted levels. As shown in the table below, Aderans aimed for an operating profit margin of 10–15% for Bosley in FY2/10–FY2/11, which corresponds to calendar years 2009–2010 for Bosley. However, Bosley's operating profit margin did not reach these targets. Even in 2012, its margin was 9.1%.

### Aderans's Targets for its US Hair Transplantation Business in FY2/09 – FY2/11

	Sales			Op. profit			Op. profit margin		
	Bosley	MHR	total	Bosley	MHR	total	Bosley	MHR	total
2007	11,086	1,753	12,839	–228	–179	–408	–2.1%	–10.2%	–3.2%
2008 Plan	11,106	5,001	16,107	756	–35	721	6.8%	–0.7%	4.5%
2009 Plan	13,045	5,350	18,395	1,455	107	1,563	11.2%	2.0%	8.5%
2010 Plan	15,327	5,750	21,077	2,213	257	2,470	14.4%	4.5%	11.7%

Source: compiled by Fisco from company materials

### ○Aderans taking more management control of Bosley

Aderans attributes Bosley's falling sales and low profitability to the company's media buying and to media fatigue. Aderans considers it difficult to improve media buying because it is linked to funding. However, it decided to combat media fatigue by producing new sales promotion materials, which Bosley started to use in December 2013. Furthermore, Aderans concluded that poor cost control was one reason for Bosley's disappointing profitability. Therefore, Aderans has seconded senior personnel from Japan to help manage costs at Bosley.

**ADERANS**

 8170 Tokyo Stock Exchange  
First Section

25-Jul.-14

## Acquired Hair Club, the leading provider of custom-made men's wigs in the US

### (iii) North American wig business

#### ○Acquired top US provider of custom-made wigs for men in 2013

In April 2013, Aderans acquired HC (USA) Inc., the leading provider of custom-made wigs for men in the US, for US\$163.5mn. Until this purchase, Aderans had been engaged only in the ready-made wig business in the US. Now, its US business line-up resembles its line-up in Japan.

#### ○North American wig sales jumped by five times in FY2/14

The business results of HC (USA) Inc. for nine months of 2013 were included in Aderans's consolidated results for FY2/14. During those nine months, HC (USA) Inc. recorded sales of ¥10,642mn, while the North American ready-made wig business reported sales of ¥2,660mn for the 12 months to February 2014. The wig business sales in North America jumped up to ¥13,302mn, five times of the original sales volume.

**Aderans's Overseas Wig Sales (¥mn) by Geographical Market, 2012 – 2013**

Market	Company	Business	Sales	
			2012	2013
North America	AHG	ready-made wigs	2,174	2,660
	HC (USA) Inc.	custom-made wigs	–	10,642
	North American wig business total		2,174	13,302
Europe			3051	4,440
Asia, other			283	547
Overseas wig business			5,509	18,290

Source: company materials

#### ○Amortization of goodwill and other factors to limit profit contribution

Although the purchase of HC (USA) Inc. complemented Aderans's product line-up in North America, greatly increased the size of its North American business, and should contribute to sales growth in the future, it will probably not contribute much to profits for several years. The purchase added about ¥6bn to Aderans's goodwill and ¥7,502mn of customer assets, which are also intangible fixed assets. The company plans to amortize these assets at a rate of about ¥2.4bn per year, which will weigh on profit growth. However, these amortizations will not affect cash flow because they are non-cash expenses. They will also not affect EBITDA, the company's prime measure of business success.

**Breakdown of Intangible Fixed Assets, 2/13 – 2/14**

	(¥mn)	
	2/13	2/14
Goodwill	522	6,550
Customer assets	–	7,502
Other assets	2,549	6,239

Source: Japanese financial statements

## Most products made in-house, ensuring cost control and high quality

### (4) Production Facilities

#### Most products manufactured in its own factories

Excluding the custom-made wigs sold by HC (USA) Inc. and a few products made for Aderans on an OEM basis, Aderans manufactures all of its products. No other large manufacturer of wigs in Japan or overseas produces such a high proportion of its goods in-house. ARTNATURE manufactures some of its products in-house, but it outsources a much higher proportion of its production than Aderans does. Aderans's in-house production system allows it to control costs and product quality effectively and may become a distinguishing strength hereafter.

#### ○Production bases in the Philippines, Thailand, and Laos

Aderans operates production bases in the Philippines, Thailand, and Laos. In Laos, the company has been overseeing production at a plant owned by a business partner, but in September 2014, Aderans plans to start operations at its own new plant in Laos, while continuing to manage output at the business partner's plant.

#### ○Production capacity adequate to meet demand

Aderans does not disclose its production capacity, but its capacity can be estimated based on the reported production output and capacity utilization rate. In FY2/13, Aderans produced 92,504 custom-made wigs and 583,542 ready-made wigs, and the company commented that the capacity utilization rate was 60% to 80%. With the start of operations at the second plant in Laos, the company's capacity utilization rate may decline. However, changes in the capacity utilization rate have a limited impact on the company's profitability because wig plants are more labor intensive than most plants in other industries. Due to the labor-intensive nature of these plants, depreciation expense should not depress profits much.

#### ○Low labor cost needed for labor-intensive production

Aderans's plants purchase pellets of plastic resin, which they process into artificial hair. This artificial hair is then manually sewn onto sheets of artificial skin to form a wig. Therefore, it is important to maintain low labor costs to profit in this business. It also seems that the company could lower its costs by developing and improving its production technology.

#### Aderans's Production Sites

Country	Company	FY2/13 aggregate output
Thailand	Aderans Thai Ltd.	custom-made wigs
	World Quality Co., Ltd.	81,114
Philippines	Aderans Philippines, Inc.	ready-made wigs
Laos	business partner plant	502,940
	Aderans plant	

Sources: compiled by Fisco from Japanese financial statements and interviews

#### ○Plants with superior cost and quality control enable spiral of profitability growth

Not so many companies in the world manufacture wigs by themselves and distribute. Typically, distributors purchase wigs from small manufacturers and sell them, sometimes as importers. ARTNATURE has two production subsidiaries in the Philippines, but it outsources a substantial portion of its production. Wig production is a light industry and conducted mainly by small companies. Larger wig sellers do not consider the ownership of a plant to be cost efficient. However, Aderans's plants give it an advantage in terms of product quality and cost. The company is confident that it maintains lower production costs than its competitors due to the location of its plants, the training of its plant employees in production technology, and the effective management of production. Of course, unit production costs decline with an increase in output. Thus, the company is prepared to realize a spiral of profitability growth as its sales growth lowers unit production costs.

## Multiple brands: Aderans needs better customer understanding of the brands

### (5) Brand Strategy

#### ○Multiple brands for goods and services

Aderans uses three brands for three different product types of wig: “Aderans” for custom-made wigs for men, “Ladies’ Aderans” for custom-made wigs for women, and “Fontaine” for ready-made wigs for women. However, it uses too many brands for its service menus. For example, for men, it offers 15 services, eight of which are: the *Hair Check* consultation service, the *Hair Repro* and *Hair Seeder*, the provision of healthy hair-growth services, the *Pinpoint Fix* and *Pinpoint Charge*, hair-volumizing products, and the *Hair Perfect*, *Hair Libera* and *Aderans Hair Club*, the main provision of wigs.

#### ○Excessive number of brands and services may lower customer satisfaction

Aderans’ s menu of many services may be able to satisfy a variety of consumer needs, but it may also create confusion among consumers about the best service for them because more than one service could be used at the same time or in sequence. The Aderans home page seems too complicated to allow customers to easily choose the best service for them. The company may argue that its Hair Check consultation service helps customers to choose the best service, but the many overlapping services offered may lead customers to fear that they may be buying more services than necessary. Therefore, overall customer satisfaction with the company’ s services could decrease.

#### ○Pursuit of customer satisfaction should be conducted appropriately

Aderans has been making many efforts to improve its customers’ satisfaction. For example, it has strict rules for conducting sales in such a manner as to establish long-term trust between the company and its customers. The company has enforced these rules even at a decline in sales, and its sales have actually declined. It is ironic that the company is willing to see its sales decline to ensure customer satisfaction when this satisfaction is reduced by a complicated service menu. There appears to be ample room to simplify the company’ s lines of brands and services.

#### ○Frequent changes in brands for women

Until the end of 2009, the brand name for women’ s custom-made wigs was Ladies’ Aderans. For 2010, this name was changed to Fontaine. At the start of 2011, the brand name was again renewed to Fontaine by Ladies’ Aderans. If this frequent change in brand name were based on a clear strategy, it might be acceptable, but frequent changes in a short period of time may confuse consumers.



## Financial Trends

### Purchase of HC (USA) Inc. boosted sales substantially, while cost cuts and yen depreciation lifted profits

#### FY2/14 Results

##### ○Sales up 33% y-o-y, recurring profit up 16%

In FY2/14, Aderans' consolidated sales increased by 32.6% y-o-y to ¥67,755mn, its operating profit rose 1.6% to ¥3,616mn, its recurring profit grew 16.4% to ¥4,481mn, and its net profit advanced 29.7% to ¥4,281mn. Of the ¥16,666mn increase in sales in FY2/14, about ¥10,600mn was due to the purchase of HC (USA) Inc. in April 2013. Without this acquisition, sales would have grown by about ¥6bn y-o-y.

##### ○Sales increase and cost cuts in Japan, plus yen depreciation, lifted operating profit

An increase in gross profit earned in Japan plus a cut in some SGA costs lifted operating profit by ¥2,617mn y-o-y in FY2/14. However, advertising and promotion costs increased by ¥1,414mn, and other SGA costs grew by ¥382mn. Thus, operating profit earned in Japan increased by ¥821mn y-o-y. Due to the purchase of HC (USA) Inc. and to the impact of yen depreciation, gross profit earned overseas increased by ¥10,121mn, but yen depreciation also raised the SGA costs of overseas operations by ¥2,195mn y-o-y, and HC (USA) Inc. had SGA costs of ¥8,873mn. Therefore, overseas operations lowered their aggregate operating profit by ¥947mn y-o-y. Other factors increased operating profit by ¥183mn. Consequently, overall operating profit grew by ¥57mn.

A ¥1,213mn non-operating foreign exchange gain raised recurring profit by 16.4% y-o-y, and its net profit, at ¥4,281mn, was comparable to its recurring profit thanks to the tax effect by tax loss carried forward.

##### ○EBITDA up 46% y-o-y

As Aderans has grown through acquisitions, it has accumulated a large amount of goodwill and other business rights that must be amortized. Therefore, the company considers EBITDA as a more appropriate measure of its profit performance than operating profit. In FY2/14, the company's depreciation and amortization costs totaled ¥3,149mn, but its EBITDA was ¥6,766mn, up 46.4% y-o-y.

#### Summary Consolidated Income Statement, FY2/06 – FY2/15E

	FY2/06	FY2/07	FY2/08	FY2/09	FY2/10	FY2/11	FY2/12	FY2/13	FY2/14	FY2/15E
Sales	72,690	73,498	74,998	70,463	57,355	48,171	47,422	51,089	67,755	74,000
Gross profit	60,000	59,772	59,533	55,582	44,488	38,877	38,862	41,704	53,938	—
SGA costs	49,680	51,560	55,467	53,074	49,753	44,760	36,330	38,145	50,321	—
Operating profit	10,319	8,212	4,066	2,508	–5,264	–5,883	2,531	3,559	3,616	4,100
Recurring profit	11,061	8,815	4,407	2,472	–5,351	–6,317	2,547	3,849	4,481	4,000
Net profit	6,149	6,091	590	–2,172	–9,851	–23,213	1,134	3,301	4,281	4,400
EPS (¥)	150.51	156.26	15.25	–56.11	–261.98	–630.65	30.83	89.69	116.32	119.54
DPS (¥)	75.00	80.00	36.00	20.00	0.00	0.00	0.00	10.00	10.00	15.00
Capital expenditure	2,565	3,701	3,125	2,375	2,536	2,150	1,249	1,782	2,011	—
Depreciation & amortization expense	2,012	2,084	2,520	2,591	2,380	1,882	1,170	1,061	3,149	—
EBITDA	12,331	10,296	6,786	5,099	–2,884	–4,000	874	4,433	6,766	7,600
Equity ratio (%)	79.1	79.3	77.9	80.5	77.8	64.4	73.2	73.6	55.7	—
BPS (¥)	1,760.45	1,877.95	1,816.84	1,582.09	1,339.98	692.02	710.33	817.40	966.12	—

**Summary Balance Sheet, FY2/06 – FY2/14**

	(¥mn)								
	FY2/06	FY2/07	FY2/08	FY2/09	FY2/10	FY2/11	FY2/12	FY2/13	FY2/14
Current assets	35,257	35,985	33,288	27,700	26,738	19,669	20,390	24,845	27,111
Cash and deposits	14,238	14,525	14,138	9,941	15,381	11,174	11,495	14,001	10,755
Sales receivable	5,167	5,565	5,944	5,471	4,120	4,016	4,220	4,961	6,248
Other current assets	15,850	15,892	13,204	12,286	4,233	4,477	4,674	5,879	10,105
Fixed assets	52,233	55,672	57,063	48,402	36,631	19,876	15,306	16,059	36,780
Tangible fixed assets	26,902	28,144	27,600	25,966	21,913	11,930	8,725	9,047	11,723
Intangible fixed assets	5,478	6,552	8,825	4,932	4,363	3,336	2,661	3,072	20,292
Long-term investments and other fixed assets	19,852	20,975	20,637	17,503	10,354	4,609	3,919	3,939	4,764
Total assets	87,490	91,658	90,352	76,102	63,369	39,546	35,697	40,904	63,892
Current liabilities	12,546	11,281	13,258	9,995	9,813	10,189	6,467	7,852	11,036
Accounts payable	1,408	1,632	1,224	1,236	473	389	257	483	1,174
Short-term borrowings	–	–	–	960	–	–	–	8	1,051
Other current liabilities	11,134	9,644	12,031	7,794	9,336	9,796	6,203	7,355	8,806
Fixed liabilities	5,606	7,355	6,667	4,763	4,137	3,884	3,068	2,833	17,032
Bonds and long-term borrowings	–	1,257	775	44	–	–	–	1	8,662
Other fixed liabilities	5,606	6,098	5,892	4,719	4,137	3,876	3,065	2,830	8,368
Shareholders' Equity	69,993	72,086	69,598	65,292	52,186	28,958	30,048	33,349	37,348
Capital stock	12,944	12,944	12,944	12,944	12,944	12,944	12,944	12,944	12,944
Additional paid-in capital	13,157	13,157	13,157	13,157	13,193	13,036	13,157	13,157	13,157
Retained earnings	51,206	55,042	52,528	48,225	33,035	9,966	10,934	14,268	18,268
Treasury stock	-7,314	-9,057	-9,030	-9,034	-6,986	-6,987	-6,987	-7,020	-7,022
Other equity	-754	924	826	-3,948	-2,768	-3,486	-3,887	-3,130	-1,525
Total equity	69,239	73,021	70,426	61,344	49,418	25,472	26,161	30,219	35,823
Liabilities & equity	87,490	91,658	90,352	76,102	63,369	39,546	35,697	40,904	63,892

**Summary Cash Flow Statement, FY2/06 – FY2/14**

	(¥mn)								
	FY2/06	FY2/07	FY2/08	FY2/09	FY2/10	FY2/11	FY2/12	FY2/13	FY2/14
Cash flow from operations	10,399	5,073	5,512	1,963	-1,886	-7,186	-61	4,378	6,325
Cash flow from investing	-2,532	258	-5,203	-335	7,610	3,579	689	-2,238	-18,036
Cash flow from financing	-5,545	-4,090	-3,944	-2,177	-3,064	-23	-85	-180	9,036
Cash and deposits at the start of the fiscal year	13,356	15,896	17,956	14,979	11,873	15,115	11,037	11,365	13,604
Cash and deposits at the end of the fiscal year	15,896	17,956	14,979	11,873	15,115	11,037	11,365	13,604	10,528

■ **Company Forecasts for FY2/15 and Medium-term Business Plan for FY2/15 – FY2/17**

**Aiming for profit growth by increasing market share in Japan and expanding overseas business**

**○Announced the forecasts for FY2/15 and the business targets for FY2/16–FY2/17**

In April 2014, Aderans announced the forecasts for FY2/15 and the business targets for FY2/16–FY2/17 and FY2/21, which are shown in the table below. The achievement of the targets through FY2/17 will be an important step towards the realization of the targets for FY2/21.

**Company Targets (¥mn) for FY2/15 – FY2/17 and FY2/21**

		FY2/14	Company Targets			FY2/21E
			FY2/15E	FY2/16E	FY2/17E	
			Forecast	Plan	Plan	
Sales	¥mn	67,755	74,000	79,000	84,000	100,000
Domestic	¥mn	40,371	42,200	44,100	46,300	50,000
Overseas	¥mn	27,384	32,800	34,900	37,700	50,000
Operating profit	¥mn	3,616	4,100	5,100	6,300	–
Recurring profit	¥mn	4,481	4,000	–	–	–
Net profit	¥mn	4,281	4,400	–	–	–
Measures of business performance						
EBITDA	¥mn	6,766	7,600	8,700	10,000	–
Operating profit margin	%	5.3%	5.5%	6.5%	7.5%	–
EBITDA margin	%	10.0%	10.3%	11.0%	11.9%	–
ROE	%	11.5%	–	–	10% or more	–

Source: company materials

**OTargeting accumulated EBITDA of ¥26.3bn in FY2/15 – FY2/17 through steady sales growth trend**

As shown in the table above, for FY2/15, Aderans forecasts a 9.2% y-o-y rise in sales to ¥74.0bn, a 13.4% increase in operating profit to ¥4.1bn, a 10.7% decline in recurring profit to ¥4.0bn, and a 2.8% upturn in net profit to ¥4.4bn. The company projects continued sales and profit growth in FY2/16 – FY2/17, and for FY2/17, it foresees sales of ¥84.0bn and operating profit of ¥6.3bn. In the three years through FY2/17, the company intends to accumulate an aggregate EBITDA of ¥26.3bn, which would equal about 90% of the ¥29.4bn of EBITDA it earned in FY2/06 – FY2/08, before the collapse of Lehman Brothers. If the company achieves the EBITDA targeted for FY2/15 – FY2/17, it will have conclusively recovered from its recent earnings lows, reached in FY2/10 – FY2/11.

We expect Aderans to increase its capital investment in FY2/15 – FY2/17, relative to its investment in FY2/12 – FY2/14. In the six years from FY2/04 through FY2/09, the company's capital investment averaged ¥3,258mn per year. Following this fairly strong investment and adversely affected by losses, the company restrained its capital investment in FY2/10 – FY2/11. It continued to limit capital expenditure in FY2/12 – FY2/14, when it spent a total of only ¥5,042mn on facilities. In FY2/14, however, it invested ¥2,011mn, which was ¥229mn more than it had invested in FY2/13. Hereafter, Aderans will most certainly invest in the growth of its overseas businesses, and given the prospects for a strong recovery of its EBITDA, we estimate that the company could easily invest ¥3bn per year, about the average amount invested in FY2/04 through FY2/09, in FY2/15 – FY2/17. The company will probably use some of this investment to renovate its stores, as it has curtailed spending on its stores for years.

**OCompany assumes no growth in Japanese wig market, great growth overseas**

Aderans based its targets for FY2/15 – FY2/17 on the assumptions that the Japanese market for men's wigs would shrink by 0.6 – 0.7% per year while the market for women's wigs would grow about 1% per year, for a composite growth rate of about 0% per year. The company foresees all of its market growth overseas. To achieve its long-term goals, the company intends to continue to acquire other companies.

**OJapanese market for men's wigs may shrink more than the company assumes**

We agree with Aderans's projections of the direction of growth for the men's and women's wig markets in Japan, but foresee a greater rate of annual decline in the market for men's wigs than the company and a greater rate of increase in the women's market if the market is exploited skillfully. Thus, we believe that the company should seek the pockets of unmet demand in the Japanese market for women's wigs, not just over the next three fiscal years, but over the next 5 – 10 years. The company plans to do this over the next three fiscal years. We should carefully watch the progress.



## ADERANS

8170 Tokyo Stock Exchange  
First Section

25-Jul.-14

### ○Key to sales growth in Japan is taking market share from smaller competitors

The company's plan for FY2/15 – FY2/17 envisions an increase in domestic sales of about ¥2bn per year. However, as mentioned above, the company does not foresee any significant growth of the Japanese wig market during these years. Therefore, the only way it can increase its domestic sales is to take share from competitors. In the market for men's wigs, Aderans's share has probably stopped falling. Aderans may not be able to take market share from ARTNATURE, but it should be able to take share from smaller competitors because the company plans to increase its advertising and promotion of men's wigs, and advertising, particularly TV advertising, is highly effective in attracting new customers. As one of the largest companies in the market, Aderans has the financial resources for this increased spending. In the market for women's wigs, which is still growing, the company holds the top share of about 40%, about double the share of number two ARTNATURE and far above the shares of smaller competitors. By taking advantage of its market dominance and increasing spending on advertising and promotion, Aderans should be able to expand its share of the women's market at the expense of smaller wig sellers.

### ○Overseas operations depend on HC and Bosley

It is difficult to judge whether the overseas market is promising for Aderans. The need for wigs or hair treatments and the consumer psychology overseas are probably similar to the needs and psychology in Japan. The price sensitivity of demand for wigs and hair treatments overseas seems higher than the price sensitivity in Japan, so demand overseas is probably more affected by changes in the economy than is demand in Japan. Aderans's two largest overseas operations are HC (USA) Inc. and Bosley Inc.. As mentioned previously, in 2013, Bosley's sales in US dollars declined y-o-y. Aderans just bought HC (USA) Inc. in April 2013. Thus, 2014 is a testing year for both Bosley and HC (USA) Inc. For January 2014, HC (USA) Inc. reported a y-o-y rise in sales, while Bosley reported a y-o-y decline. This was not a particularly propitious start of the year for overseas operations.

### ○Aderans plans to expand its overseas operations through acquisitions

In its analyst meetings following the announcement of results, Aderans has clarified that it intends to increase its overseas operations through acquisitions. However, it appears that the company will limit its acquisitions to a few billion yen each, which would be smaller than its acquisition of HC (USA) Inc. Keeping acquisitions small would reduce the financial risk of such transactions, but it may also increase the administrative requirements of the main office and restrict profit contributions. The biggest difference between the company's business model for Japan and its business model for overseas is that the Japanese model relies on the market for custom-made wigs, while the overseas model relies on the market for ready-made wigs. With the purchase of HC (USA) Inc, Aderans's business model for North America resembles its business model for Japan. In Europe, Aderans has been profiting from providing ready-made wigs. If the company were to promote sales of custom-made wigs in Europe, it might profit even more. This strategy could contribute significantly to the company's profit growth over the medium term.

## ■ Shareholder Return Policy

**Company plans to pay a dividend per share of ¥15 for FY2/15, ¥5 more than its DPS for FY2/14**

### ○Shareholder returns based on dividends

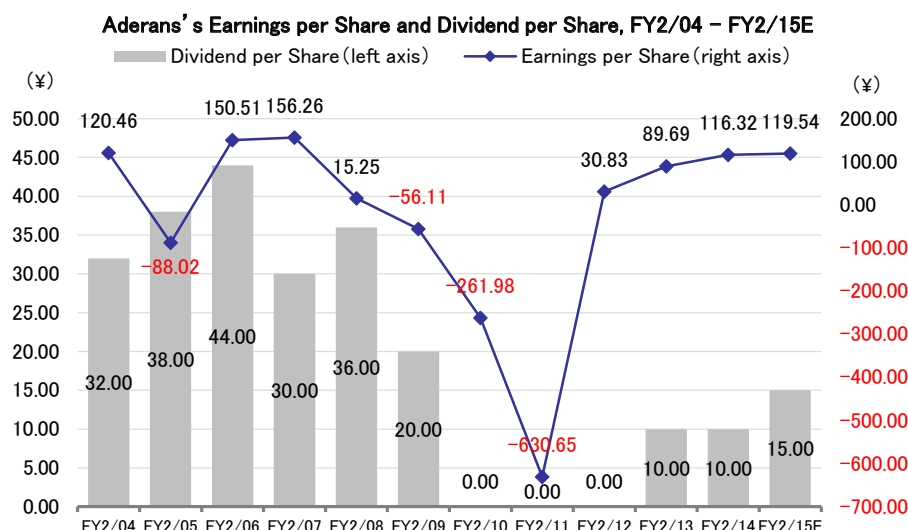
Aderans returns profits to shareholders through dividends that are based on stable earnings, the funds needed for investment in future growth, and the company's cash position. Based on these factors, the company paid a dividend of ¥10 per share for FY2/14, unchanged from its dividend for FY2/13, even though its net profit increased by almost 30% y-o-y in FY2/14.

### ○Plan to increase dividend per share by ¥5 for FY2/15 shows positive company attitude towards shareholder returns

Based on the company's profit forecasts for FY2/15, Aderans plans to raise its dividend per share for FY2/15 to ¥15, from ¥10 in FY2/14. Even so, the dividend payout ratio for FY2/15 seems low, but the company's net profit in FY2/15 will be lifted by accumulated losses in previous years. The company will also have to increase its investment in overseas businesses. Thus, its announced returns for shareholders in FY2/15 seem adequate.

### ○Company could increase its dividend payment capacity over next two fiscal years

In FY2/15 – FY2/17, the company aims for an accumulated EBITDA of ¥26.3bn, while it plans capital investment of about ¥10bn. Given its accumulated losses, the company should pay almost no taxes in FY2/15 – FY2/17. Thus, it should have ample free cash flow with which to increase its dividend per share.



## Disclaimer

FISCO Ltd. (the terms "FISCO", "we", mean FISCO Ltd.) has legal agreements with the Tokyo Stock Exchange, the Osaka Exchange, and Nikkei Inc. as to the usage of stock price and index information. The trademark and value of the "JASDAQ INDEX" are the intellectual properties of the Tokyo Stock Exchange, and therefore all rights to them belong to the Tokyo Stock Exchange.

This report is based on information that we believe to be reliable, but we do not confirm or guarantee its accuracy, timeliness, or completeness, or the value of the securities issued by companies cited in this report. Regardless of purpose, investors should decide how to use this report and take full responsibility for such use. We shall not be liable for any result of its use. We provide this report solely for the purpose of information, not to induce investment or any other action.

This report was prepared at the request of its subject company using information provided by the company in interviews, but the entire content of the report, including suppositions and conclusions, is the result of our analysis. The content of this report is based on information that was current at the time the report was produced, but this information and the content of this report are subject to change without prior notice.

All intellectual property rights to this report, including copyrights to its text and data, are held exclusively by FISCO. Any alteration or processing of the report or duplications of the report, without the express written consent of FISCO, is strictly prohibited. Any transmission, reproduction, distribution or transfer of the report or its duplications is also strictly prohibited.

The final selection of investments and determination of appropriate prices for investment transactions are decisions for the recipients of this report.

FISCO Ltd.