

## Asahi Holdings (5857, JP)

Exchange: Tokyo Stock Exchange 1  
Sector: Environmental (Waste Recycling)  
Market Cap: JPY76.8 billion  
P/B: 1.4x (3/16 act)

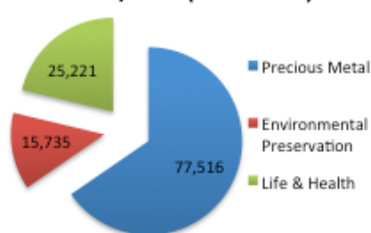
Recommendation: BUY  
Share Price: JPY2,078 (1/17/2017)  
Target Price: JPY2,947  
P/E: 10.3x (3/17 CE)  
Div. Yield: 2.9% (3/17 CE)

### Highlight

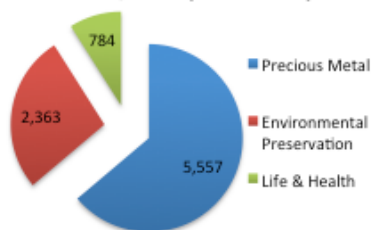
Titlis initiates BUY recommendation of Asahi Holdings. Due to its solid competitive positioning dealing with a wide range of waste categories and managing close relationship with suppliers, Environmental Preservation business makes robust profit margin, although waste volume in Japan remains flat. Precious Metal recycling business is expected to improve in 4Q, as precious metal prices hit the bottom in 3Q led by stronger USD/JPY. Further appreciation of USD/JPY raises JPY based precious metal prices and would pull the profits higher, although full year earnings are expected to be inline with company outlook at this moment. In terms of valuation, considering its break-up value of business value of each business segment plus net cash, the share price looks undervalued. Titlis does not include assumption of further expansion to overseas market in mid-term projection for FY03/2020 at this time, but the share price will react positively if Asahi promotes to further expansion by using its stable cash flow. Considering its financial stability, Asahi should be a candidate in the BUY list for the mid-term.



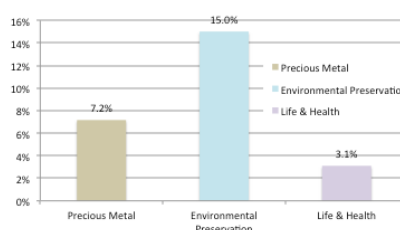
Sales by Segment for FY03/2016 (JPY million)



OP by Segment for FY03/2016 (JPY million)



OP Margin by Segment for FY03/2016



### Business Description

Asahi Holdings was established in 1952 as Asahi Chemical Laboratory and started silver recycling business from photographic fixing solutions. The company grew on rapid expansion of demand for silver in industries related to silver for photosensitive materials as well as photography. In 1982 Asahi diversified to precious metal recycling business in dental industry on expectations of the reduction of the photo effluent treatment market. Asahi expanded its precious recycling to electronics components and jewelry, and has developed Environmental Preservation business other than photographic fixing solutions. In 2014 Fujiiryoki was consold in its new business segment of Life and Health business. Asahi acquired Asahi Refining USA Inc. & Asahi Refining Canada Ltd. in 2015. Now, the company operates business in 3 segments such as Precious Metal, Environmental Preservation and Life & Health (See 2 pie Charts and a Bar Chart on left).

### Precious Metal

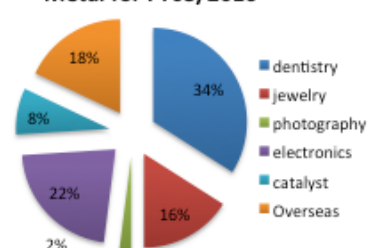
Precious metal is the largest segment, adding North American business acquired Johnson Matthey Gold & Silver Refiners in 2015. Precious metal recycling business that operates in Japan and Asia gathers precious and rare metals from customers in a various industry such as dentistry, jewelry, photography, e-scrap, plating treatment, precision cleaning, catalyst and LCD, processing them to finishing products as gold, silver, palladium, platinum, rhodium and indium (see Picture below).

# Titlis Group

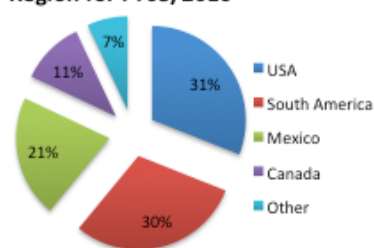
corporate governance, investment research & solutions

## Processes of precious metals collection and recycling

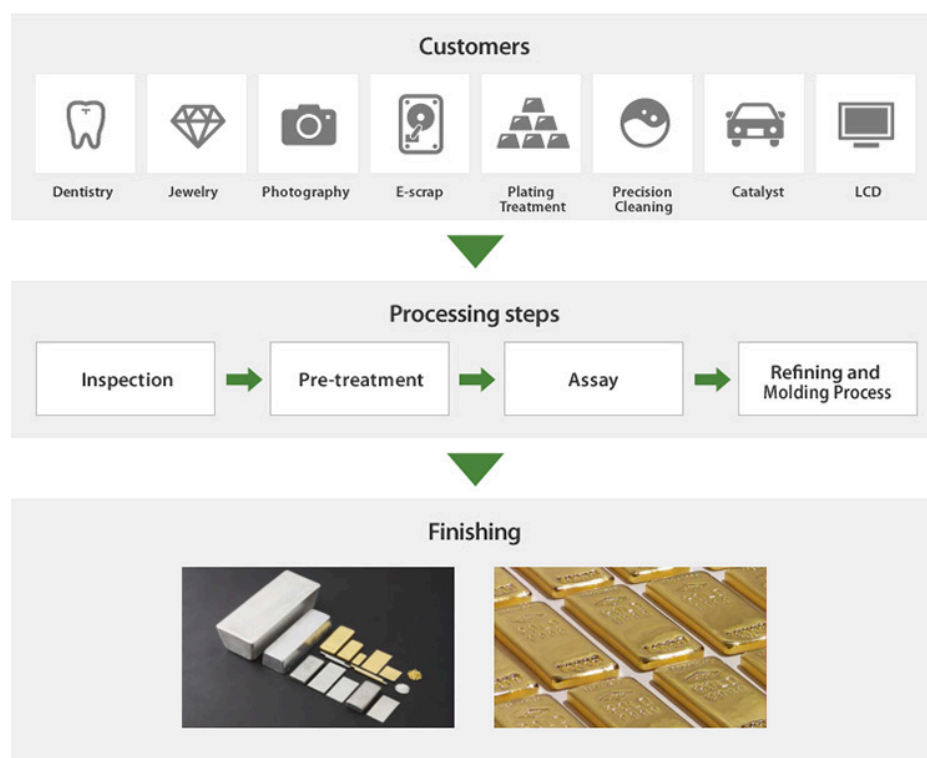
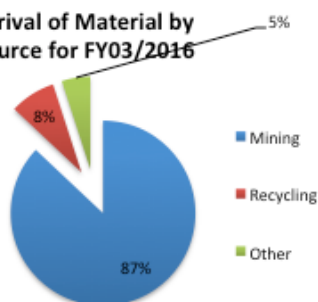
Revenue Source of Precious Metal for FY03/2016



Arrival of Material by Region for FY03/2016



Arrival of Material by Source for FY03/2016



Recycling business is operated by 2 ways of contract order and purchase. Contract orders make revenue as commission Asahi and return finished goods to customers. For purchase, Asahi takes risk for a few months of working in progress and sells finished goods to customers. Therefore, the earnings grow when price of precious and rare metals are increasing.

North American business operates precious metal refining as Asahi Refining USA and CANADA, that refines mine-derived gold and silver from mining companies to finished products and ships to customers in Salt Lake City U.S. and Brampton Canada (see Picture below). Production of gold and silver is 450 t and 2,000 t respectively that is a top market share in North America.



## Environmental Preservation Business

Asahi operates recycling business other than precious metal in this segment. Industrial Material consists of 2 growth products, dealing with a wide range of wastes such as waste oil and sludge, wood waste, fireproof brick, glass and organic waste liquid and sludge.

## Life & Health Business

This segment is comprised of acquired companies in 2012, 2013 and 2014 for diversifying its business domain on the expectations of growing demand of health care business led by increasing senior population. Fujiiryoki provides massage chairs, Inter Central provides radiant air-conditioning system equipment and Koeikogyo provides facilities for fire-prevention, air-conditioning and sanitation equipment (see Picture below) Of the 3 subsidiaries, Fujiiryoki is the largest contribution to this segment.

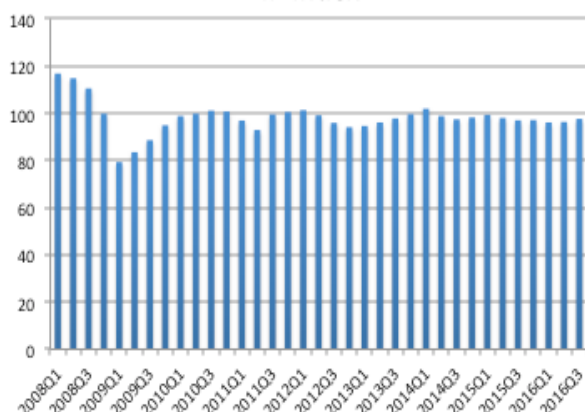


## Industry Overview and Competitive Positioning

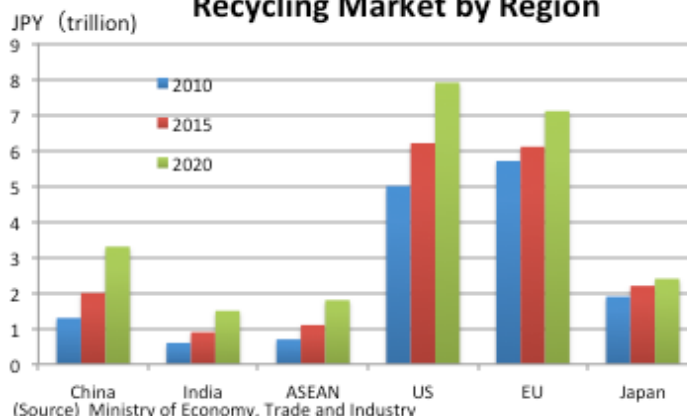
### Industry Overview

Recycling market is depending on waste volume. Waste market is also dependent on economic activity of production and consumer expenditures. Waste volume is likely to grow slower in Japan, as Japan's industrial production has remained flat and IP Index of Japan stayed at 97.6 in Q3 FY2016 from 100 in FY2010 (see Chart on below left). Production base of Japanese manufacturers has shifted to overseas and GDP will not grow at faster than before due to the decrease in population. Meanwhile, recycling market in worldwide is expected to double from JPY20 trillion in 2010 to JPY40 trillion in 2020 according to research by Ministry of Economy, Trade and Industry of Japan (METI). Recycling market in Asia is expected to grow faster due to growth in economy and population (see Chart below right).

IP Index



Recycling Market by Region



## Competitive Positioning

Competitive Positioning is analyzed each growth and legacy products in 5 Forces.

## Precious Metal Recycling

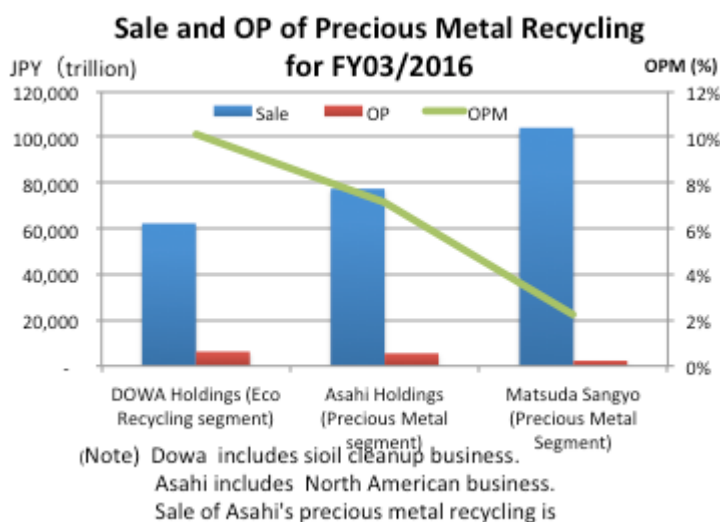
**Buyers** (Low risk): Price of precious metals is transparent standardized and gold, silver, platinum and palladium are traded in exchanges such as LME. Asahi is a member of LBMA (London Bullion Market Association) and LPPM (London Platinum and Palladium Market) and its products are certified as Good Delivery bars. Customers are very likely to buy Asahi's precious metals as highly reliable quality.

**Suppliers** (Low-Middle risk): Waste volume in industry is expected to slow to grow in line with slower growth in economy and industrial production. However, Asahi buys waste materials from a wide variety of suppliers such as dentists, jewelers, manufacturers and scrap collectors. Asahi's one of competitiveness is due to strong network in nationwide. Its 400 work forces buy materials from suppliers in various industries through direct contact as well as activity integrated with field engineers to manufacturers. Due to highly capable forces responding to supplier's need and long-term relationship with suppliers, risk of suppliers would be marginal.

**Competition** (Middle risk): 3 precious metal recycling operators lead the market in Japan such as Dowa Ecosystem is Dowa Holding (5714, JP)'s subsidiary and Matsuda Sangyo (7456, JP). Each company does not disclose financial information of pure precious metal recycling business in sale and OP. Sale of Dowa was JPY62 billion including soil remediation business, that of Asahi is estimated to be JPY63 billion excluding North American business and

that of Matsuda was JPY104 billion dealing with other waste materials recycling for FY03/2016.

All 3 companies are competing one another, making revenue between JPY50 billion and JPY100 billion pure precious metal recycling business (see Chart on left). OP margin of Asahi is after Dowa, but OPM of Asahi's pure precious metal recycling would not be lower than that of Dowa as relatively higher margin of soil cleanup business would pull it higher. In decreasing waste materials in Japan, small operators are unlikely make profit well and market consolidation is likely to advance going forward. For one of market leaders risk of competition would be middle, but Asahi seems to maintain decent profit margin right now.



**New Entry** (Low risk): Technology is a barrier of new entry. Asahi has strong data based analytic skills that require highly precise technology of analyzing content of precious metals in a bunch of waste materials. Also, refining is



another technology for processing from waste material to pure precious metal like 99.99% good delivery bar effectively. Due to its advanced technology, threat of new entry would be limited.

Substitution (Low risk): As disposal of waste materials is a big issue across globe, recycling is a vital solution in environmental issues. METI aims at raising recycling use from 15% to 17% and decreasing final disposal from 19 million t of FY2010 to 17 million t of FY2020, in its 3<sup>rd</sup> recycling basic plan as of May 2013. Due to the increase of global government policy, substitution risk is low.

## **North American business (Precious Metal Refining)**

Buyers (Low risk): Asahi's North American subsidiary (former Johnson Matthey) has 99 years history in this industry and has established brand name in North America. Price of precious metals is transparent standardized and gold and silver are traded in exchanges such as LME. Asahi Refining is a member of LBMA, COMEX and TOCOM and its products are certified as Good Delivery bars. Customers are very likely to buy Asahi's precious metals as highly reliable quality, too.

Suppliers (Low-Middle risk): In its long relationship with mining companies and its top brand in North America, Asahi Refining has strong positioning in North American market. Due to close relationship with suppliers in North America, the subsidiary does not seem to fall into immediate risk but should develop suppliers in other regions as the company is growing. Its materials are not well diversified, coming 31% from US, 30% from South America, 21% from Mexico and 11% from Canada, whereas gold production in WW mines is diversified globally as gold production in North America and South America accounts for only 499 t (15.8%) and 554 t (17.5%) respectively of world production of 3,157 t.

Competition (Middle risk): Due to its top market share in North America and enhanced refining technology and R&D, as a market leader the subsidiary is in advantageous positioning at the moment. However, due to continuing lower precious metal price, if Asahi Refining expands to other regions such as Asia, the competition would be more intense.

New Entry (Low risk): Refining technology and brand is entry barrier. Refining pure precious metals like 99.99% good delivery bar and certifications by world gold institutions are key factors for doing this business. Establishing a new business in this industry is not easy for a new entrant.

Substitution (Low risk): Precious metal is one of limited natural resources. The refining technology and reliable brand of good delivery bar would be hardly substituted.

## **Environmental Preservation**

Buyers (Middle risk): Recycled products are sold to manufacturers at market price. Due to lower commodity prices and slower industrial production, price and volume of recycled products are less likely to gain and recycled prices are likely to come under pressure by buyers.

Suppliers (Low-Middle risk): As mentioned earlier, waste volume in industry is expected to slow to grow in line with slower growth in economy and industrial production. However, Asahi collects materials from suppliers by increasing the number and the field of waste materials. Some wastes that require disposal facility with permission by government are difficult to dispose in environmental issues, but Asahi owns such a capability in its group companies. In this advantage, the company has expanded items of industrial waste items in nationwide to such difficult of disposal items by acquiring recycling operators. Such a wide-range of dealing items, Asahi is expected to buy materials at favorable price from suppliers.

Competition (Low-Middle risk): Waste recycle operators are required government permission license in each waste category. Business of each recycle category or item is not easy and the competition is not loose due to lower commodity price and slower industrial production. However, Asahi's recycling subsidiaries operate in a wide range of categories, including items that government would hardly grant permission to build a waste disposal site. This would benefit to the company, as a supplier that produces more than a kind of waste is very likely to provide Asahi to recycle waste materials.

New Entry (Low risk): Due to government license of waste disposal there is entry barrier. Each waste item also needs government license and recycle technology.

Substitution (Low risk): As the environmental issue is growing globally, demand of recycling waste materials is a necessarily increasing. Even though recycling technology is evolving, substitution risk is low for recycling business.

## **Life & Health**

Buyers (Middle risk): Due to slow recovery of consumer spending in Japan, health care equipment market is expected to continue modest growth, although senior population is increasing to 2020 and government encourages self-health care to reduce medical expense. Fujiiryoki's core product, massage chairs grew slow due to anemic consumer spending, while wearable device led the overall self-health care equipment market that is anticipated to grow 2% for FY2015 after 3.2% growth for FY2014. Fujiiryoki has promoted expanding its distribution channel from 'B to C' such as retailers, large appliance retailers and mail order to 'B to B' channel such as fitness gym, resort hotels, airport, amusement park and nursing care homes. However, luxurious massage chairs for JPY300,000 have hit by slower consumer spending.

Suppliers (Low risk): Self-care health equipment such as massage chair, hearing aid and hydrogen water is consumer goods. Switching risk of suppliers is low.

Competition (Middle-High risk): For massage chair the competition is not high for Fujiiryoki that is a market leader sharing with Panasonic (6752, JP). But for other products such as hearing aid and hydrogen, Fuji does not have a top market share. The competition is relatively higher for consumer market.

New Entry (Middle-High risk): Due to increasing aging population, risk of new entry is relatively higher. Different from Asahi's other 2-business segment, there is no barrier in technology and government regulation.

Substitution (Middle-High risk): Innovation of technology would help to develop alternative equipment as wearable health care check device are popular right now. Hydrogen water is booming at this moment, but it would be replaced at any time when something new or seemingly more effective for health will be introduced in marketplace.

## Investment Summary

### Business Outlook

Due to appreciation of USD/JPY, precious metal prices in JPY base have rebounded since 3Q end. Full year earnings are expected to be in line with the company projection. In the mid-term, Asahi's recycling business is competitive in domestic market and likely to maintain stable profit, but revenue growth is depending on price increase, as recycling material in volume will not increase in Japan. Further expansion to Asian market is a key for the company, although Titlis does not assume further M&A and expansion to overseas market in the projection.

### Competitive Positioning and Risks

Precious Metal business is relatively strong positioning due to its tight relationship with suppliers through 400 work forces who procure waste materials directly at better prices than broker channel. Recycling business is supported by Asahi's wide range of waste items, as a supplier that produces more than a kind of waste is more likely to provide materials to Asahi. North American precious metal refining business is also competitive in North American market due to its strong brand in the local market. However, the subsidiary needs to develop other market going forward for further growth. On Life & Health business, its positioning is relatively weak. Consumer products market is severer competition and lower entry barrier. A number of players are competing in the market on expectations of growing health care demand.

### Valuation

The share price seems to be undervalued. Analyzing business value and net cash on Sum-of-the-parts NAV, NAVs for FY03/2017 (E) and FY03/2020 (E)

are JPY2,947 and JPY3,373 a share, both of which are higher than the closing price as of January 17<sup>th</sup> 2017. EV/EBITDA will decline from 5.7x for FY03/2016 to 4.4x for FY03/2017 (E) and 3.9x for FY03/2020 (E), which is slightly lower than 5x on average from FY03/2014 to FY03/2016.

## **Financial Stability**

Asahi has solid balance sheet and positive net cash and net working capital backed by stably positive free cash flow. EBITDA margin maintains double digit but is less likely to increase further, as Life & Health business pulls it lower. Such an issue of enhancing business portfolio remains, but Asahi Holdings is financially stable enough.

## **Business Outlook**

### **2Q FY03/2017**

Total sale was down 17.7% YoY to JPY51,691 million, but OP was up 0.1% YoY to JPY5,696 million, EBT down 1.9% YoY to JPY5,499 million and NP up 7.0% YoY to JPY3,81 million. Sale by segment mostly lost sale in Precious Metal segment due to lower price of precious metals except silver, while volume of recycle materials remained flat from a year ago. Gold was down 0.5% YoY, Palladium plunged 8.8% YoY and Platinum fell 8.4% YoY, whereas silver gained 9.6% YoY from 2Q FY2016. On OP by segment, lower profit of Precious Metal was offset by higher profit of Environmental Preservation. OP margin of Environmental Preservation segment increased to 19.5% from 15.5% for the same period of the previous fiscal year led by the increase of profitable projects.

### **Full Year FY03/2017 Outlook by Company**

Asahi Holdings kept its previous outlook and dividend on hold for full year FY03/2017. Sale, OP, EBT and NP are projected to be JPY110,000 million, JPY10,000 million, JPY10,000 million and JPY6,600 million respectively. The company changed accounting principle to IFRS from this fiscal year. Dividend will be paid JPY30 a share for semiannually (annually JPY60 a share).

### **Full Year FY03/2017 by Titlis**

Titlis expects its full year sale and profits to be inline with company outlook. Sale is expected to be JPY109,865 million, and OP to be JPY10,441 million, EBT to be JPY10,244 million and NP to be JPY6,994 million (see Table below). Earnings by segment, Precious Metal is expected to improve sale and profit due to recovery of precious metal price led by stronger USD/JPY in 4Q and Environmental Preservation maintains solid earnings on profitable projects, whereas Life & Health continues slower for entire year due to slow consumer spending (see Table below).



## Mid-term Projection FY03/2020 by Titlis

Recycling volume in Japan is unlikely to grow faster. The domestic recycling business of Precious Metal Recycling and Environmental Preservation (other industrial waste recycling) would not grow at solid pace. Although Asahi expands overseas bases in Korea, China and Taiwan, it's not enough to affect its earnings significantly. Looking beyond FY03/2018 after ongoing its mid-term management plan, further expansion to Asia would be required for Recycling business and Precious Metal Refining business. Life & Health business is hardly expected synergy with other businesses. Moreover, its competitive positioning is not strong enough and seems to be difficult going forward. Due to low entry barrier competition in the industry is very likely to remain intense. Titlis does not further M&A and expansion in Asian market in the projection. Mid-term earnings are expected to grow at moderate rate for FY03/2020, assuming precious metal prices of JPY base will remain flat (see Table below). In case of aggressive expansion, the mid-term outlook should be revised positively.

	Precious Metal			Environmental Preservation			Life & Health			Adjustment		Total	
FY2017/3 (E) JPY million	Sales	OP	OPM	Sales	OP	OPM	Sales	OP	OPM	Sales	OP	Sales	OP
1Q (IFRS)	18,369	2,388	13.0%	3,851	706	18.3%	5,580	160	2.9%	-609	-609	27,800	2,645
2Q (IFRS)	14,278	2,454	17.2%	3,956	820	20.7%	5,705	382	6.7%	-605	-605	23,939	3,051
3Q (E)	17,949	1,462	8.1%	4,492	683	15.2%	5,243	251	4.8%	-590	-590	27,683	1,806
4Q (E)	19,133	2,167	11.3%	4,601	982	21.3%	6,757	390	5.8%	-600	-600	30,491	2,939
Full Year (E)	69,728	8,472	12.1%	16,900	3,191	18.9%	23,286	1,183	5.1%	-2,404	-2,404	109,913	10,441
Full Year (CE)	68,300	8,100	11.9%	15,600	2,800	17.9%	26,100	1,500	5.7%	-2,400	-2,400	110,000	10,000
FY2018/3 (E)	Sales	OP	OPM	Sales	OP	OPM	Sales	OP	OPM	Sales	OP	Sales	OP
1Q (E)	21,916	2,663	12.1%	3,928	742	18.9%	5,636	162	2.9%	-609	-609	31,480	2,957
2Q (E)	16,334	1,984	12.1%	4,035	762	18.9%	5,762	386	6.7%	-605	-605	26,131	2,527
3Q (E)	20,884	2,537	12.1%	4,581	865	18.9%	5,296	253	4.8%	-590	-590	30,761	3,066
4Q (E)	19,333	2,349	12.1%	4,693	886	18.9%	6,825	394	5.8%	-600	-600	30,851	3,029
Full Year (E)	78,468	9,533	12.1%	17,238	3,255	18.9%	23,518	1,194	20.1%	0	-2,404	119,224	11,579
Full Year (CE)							5,060					120,000	11,500
FY2019/3 (E)	Sales	OP	OPM	Sales	OP	OPM	Sales	OP	OPM	Sales	OP	Sales	OP
1Q (E)	22,146	2,691	12.1%	4,007	757	18.9%	5,692	163	2.9%	-609	-609	31,845	3,001
2Q (E)	16,505	2,005	12.1%	4,116	777	18.9%	5,820	390	6.7%	-605	-605	26,441	2,567
3Q (E)	21,112	2,565	12.1%	4,673	882	18.9%	5,349	256	4.8%	-590	-590	31,134	3,113
4Q (E)	19,536	2,374	12.1%	4,787	904	18.9%	6,893	398	5.8%	-600	-600	31,217	3,075
Full Year (E)	79,301	9,635	12.1%	17,582	3,320	18.9%	23,754	1,206	20.1%	0	-2,404	120,637	11,757
Full Year (CE)							5,858						
FY2020/3 (E)	Sales	OP	OPM	Sales	OP	OPM	Sales	OP	OPM	Sales	OP	Sales	OP
1Q (E)	22,379	2,719	12.1%	4,087	772	18.9%	5,749	165	2.9%	-609	-609	32,215	3,046
2Q (E)	16,679	2,026	12.1%	4,198	793	18.9%	5,878	394	6.7%	-605	-605	26,755	2,608
3Q (E)	21,334	2,592	12.1%	4,766	900	18.9%	5,402	258	4.8%	-590	-590	31,503	3,160
4Q (E)	19,742	2,398	12.1%	4,883	922	18.9%	6,962	402	5.8%	-600	-600	31,586	3,122
Full Year (E)	80,133	9,736	12.1%	17,934	3,386	18.9%	23,991	1,218	20.1%	0	-2,404	122,058	11,936

(Source) Asahi Holdings, titlis

	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	EBT	Tax	Minority	Net Profit		
FY2017/3 (E)														
1Q (IFRS)	27,800	-22,008	-79.2%	5,792	-3,786	-13.6%	2,645	9.5%	2,517	-623	-14	1,880		
2Q (IFRS)	23,891	-17,097	-71.6%	6,794	-3,697	-15.5%	3,051	12.8%	2,982	-841	-38	2,103		
3Q (E)	27,683	-19,912	-72.6%	7,771	-5,965	-21.5%	1,806	6.5%	1,806	-658	-29	1,119		
4Q (E)	30,491	-21,574	-72.6%	8,917	-5,979	-19.6%	2,939	9.6%	2,939	-999	-47	1,892		
Full Year (E)	109,865	-80,591	-73.4%	29,275	-19,427	-17.7%	10,441	9.5%	10,244	-3,121	-128	6,994	213.41	9.74
Full Year (CE)	110,000						10,000	9.1%	10,000			6,600	202.46	10.26
FY2018/3 (E)	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	EBT	Tax	Minority	Net Profit		
1Q (E)	31,480	-24,236	-77.0%	7,244	-4,287	-13.6%	2,957	9.4%	2,957	-1,005	-48	1,904		
2Q (E)	26,131	-19,560	-74.9%	6,571	-4,044	-15.5%	2,527	9.7%	2,527	-859	-41	1,627		
3Q (E)	30,761	-21,067	-68.5%	9,694	-6,628	-21.5%	3,066	10.0%	3,066	-1,042	-49	1,974		
4Q (E)	30,851	-21,773	-70.6%	9,078	-6,049	-19.6%	3,029	9.8%	3,029	-1,030	-49	1,950		
Full Year (E)	119,224	-86,637	-72.7%	32,587	-21,008	-17.6%	11,579	9.7%	11,579	-3,937	-187	7,455	227.48	9.14
Full Year (CE)	120,000						11,500	9.6%						
FY2019/3 (E)	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	EBT	Tax	Minority	Net Profit		
1Q (E)	31,845	-24,507	-77.0%	7,338	-4,337	-13.6%	3,001	9.4%	3,001	-1,020	-48	1,933		
2Q (E)	26,441	-19,782	-74.8%	6,659	-4,092	-15.5%	2,567	9.7%	2,567	-873	-41	1,653		
3Q (E)	31,134	-21,312	-68.5%	9,822	-6,709	-21.5%	3,113	10.0%	3,113	-1,058	-50	2,005		
4Q (E)	31,217	-22,021	-70.5%	9,196	-6,121	-19.6%	3,075	9.9%	3,075	-1,046	-50	1,980		
Full Year (E)	120,637	-87,622	-72.6%	33,015	-21,258	-17.6%	11,757	9.7%	11,757	-3,997	-189	7,570	230.98	9.00
Full Year (CE)							#DIV/0!							
FY2020/3 (E)	Sales	COGS	COGS/S	Gross Profit	SGA	SGA/S	OP	OPM	EBT	Tax	Minority	Net Profit		
1Q (E)	32,215	-24,781	-76.9%	7,434	-4,387	-13.6%	3,046	9.5%	3,046	-1,036	-49	1,962		
2Q (E)	26,755	-20,007	-74.8%	6,748	-4,140	-15.5%	2,608	9.7%	2,608	-887	-42	1,679		
3Q (E)	31,503	-21,554	-68.4%	9,948	-6,788	-21.5%	3,160	10.0%	3,160	-1,074	-51	2,035		
4Q (E)	31,586	-22,271	-70.5%	9,315	-6,193	-19.6%	3,122	9.9%	3,122	-1,062	-50	2,010		
Full Year (E)	122,058	-88,613	-72.6%	33,445	-21,509	-17.6%	11,936	9.8%	11,936	-4,058	-192	7,686	234.51	8.86
Full Year (CE)														

(Source) Asahi Holdings, titlis

## Valuation

Asahi share price looks undervalued on sum-of-the parts valuation. The NAV for FY03/2017 (E) and FY03/2020 (E) is 30% and 38% discount from closing price as of January 17<sup>th</sup> 2017, which shows some upside room for the share price on its business value and net cash point of view. Examining EV/EBITDA, the multiple will go down to 4.4x for FY03/2017 (E) from 5.7x for FY03/2016.

## Sum-of-the Parts Value

Sum-of-the-Parts (SOTP) value is estimated by aggregate value of business value in each business segment that is normalized EBIT, EBITDA and FCF from FY03/2013 to FY03/2017(E), and net cash and long-term investment securities and land. SOTP value for FY03/2017(E) is estimated to be JPY2,947 a share (30% discount of closing price of January 17<sup>th</sup> 2017). SOTP value for FY03/2020(E) is estimated to be JPY3,373 a share (38% discount of closing price of January 17<sup>th</sup> 2017), as shown table below. The share price as of January 17<sup>th</sup> 2017 is lower than both values above. The business value of each segment is computed by 10x of EBIT, 5x of EBITDA and 15x of FCF and either of the higher value is applied to business value of a segment. These multiples do not seem to be high. There would be upside potential for the share price.

NAV's:			NAV's:		
Sum of the parts NAV FY2017/3 (E):			Future NAV 2020/3 (E):		
Precious Metal	1,912	10x EBIT	Precious Metal	2,192	10x EBIT
Environmental Preservation	810	15x FCF	Environmental Preservation	783	15x FCF
Life & Health	319	15x FCF	Life & Health	328	15x FCF
Adjustment	(332)	5x EBITDA	Adjustment	(332)	5x EBITDA
Cash	705	1x Book	Cash	854	1x Book
Investment Securities	16	0.75x Book	Investment Securities	32	0.75x Book
Land	294	0.75x Book	Land	294	0.75x Book
Debt	(766)	1x Book	Debt	(766)	1x Book
Minority Interest	(11)	1x Book	Minority Interest	(11)	1x Book
Total SOTP NAV	JPY 2,947	70.5%	Total Future NAV	JPY 3,373	61.6%

## EV/EBITDA

EV/EBITDA for FY03/2017(E) is estimated to be 4.5x and will slightly decline to 4.0x for FY03/2020 (E) from 5.7x for FY03/16.

	Mar-14	Mar-15	Mar-16	Mar-17(E)	Mar-18(E)	Mar-19(E)	Mar-20(E)
Avg. Mkt. Cap	JPY 58,378	JPY 61,148	JPY 62,008	JPY 57,190	JPY 57,190	JPY 57,190	JPY 57,190
EV	JPY 54,983	JPY 83,594	JPY 73,600	JPY 59,804	JPY 54,381	JPY 47,959	JPY 41,423
EV/EBITDA	5.05	4.95	5.72	4.42	4.05	3.99	3.94
EV* (LT Inveset)	JPY 41,690	JPY 68,858	JPY 58,639	JPY 44,843	JPY 39,420	JPY 32,998	JPY 26,462
EV*/EBITDA	3.61	5.58	5.41	3.47	2.79	2.30	1.82

## Financial Analysis

As shown key financial ratios in table below, Asahi has strong balance sheet, as net cash and net working capital as well as positive free cash flow. Gross profit margin has improved over years while precious metal prices remained lower. This shows the company's competitiveness and if sales turn to expansion, profit margins and cash flows significantly improve.

Financial Ratios:	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17(E)	Mar-18(E)	Mar-19(E)	Mar-20(E)
ROE	6.12%	7.01%	11.83%	10.07%	13.44%	12.81%	11.73%	10.81%
Gross Margin	13.29%	16.16%	20.71%	21.74%	26.65%	27.33%	27.37%	27.40%
EBITDA Margin	10.04%	12.26%	11.08%	9.14%	11.76%	11.84%	11.89%	11.90%
EBIT Margin	7.78%	10.22%	9.41%	7.35%	9.50%	9.71%	9.75%	9.78%
Return on Assets	2.87%	9.03%	5.51%	4.95%	6.59%	6.54%	6.27%	6.02%
Return on Fixed Assets	21.72%	52.89%	32.50%	28.59%	39.74%	42.36%	43.02%	43.67%
Revenue / Assets	61.30%	142.55%	106.24%	116.61%	103.51%	104.57%	99.86%	95.57%
Depreciation / Capex	98.92%	187.96%	5.94%	119.39%	68.57%	70.00%	71.43%	71.43%
Depn / Sales	2.18%	1.95%	1.60%	1.73%	2.18%	2.05%	2.07%	2.05%
Capex / Sales	2.20%	1.04%	26.99%	1.45%	3.19%	2.94%	2.90%	2.87%
Depn / Net FA	10.10%	16.32%	10.05%	11.61%	13.64%	13.92%	14.21%	14.21%
Asset / Equity	1.27	1.42	2.06	2.07	1.93	1.86	1.78	1.72
Equity / Asset	78.75%	70.51%	48.59%	48.22%	51.93%	53.74%	56.12%	58.29%
Total Debt / EBITDA	0.55	0.53	2.68	2.56	2.15	1.97	1.94	1.91

## Investment Risks

### Lower precious metal and commodity prices (Likely, Middle Risk)

In case of lower precious metal and commodity prices, recycling business hardly makes enough profit. However recycling other than precious metals improved profitability for 1H FY2017 due to its advantages of dealing with wide range of waste materials. Lower prices pull profitability lower, but Asahi makes the risk minimize.

### Regulation (Likely, Low-Middle Risk)

Recycling business requires permission by government. If regulation changes significantly, it would affect impact on the business model. However, government or METI promotes recycling in 3<sup>rd</sup> recycling basic plan as of May 2013.

### Strong JPY rate (Likely, Mid Risk)

Recycling prices are determined by precious metal or commodity price in JPY base and USD/JPY rate significantly affect the earnings. Currencies are fluctuate and hardly to expect the movement. USD/JPY bounce back to lower would be possible, but Asahi has tried to develop customers/suppliers to make enough profit, as mentioned earlier.

### Global economic downturn (Likely, Mid-High Risk)

In global recession, plunging commodity price and depreciation of USD/JPY simultaneously would occur. Moreover, industrial production will decrease and waste materials volume will decline. This would results in lower demand of recycling products and lower commodity prices.

Aki Matsumoto, CFA  
akimatsumoto@titlisgroup.com

# Titlis Group

corporate governance, investment research & solutions

## Appendix

	2013/3	2014/3	2015/3	2016/3	2017/3 (E)	2018/3 (E)	2019/3 (E)	2020/3 (E)
<b>Assets</b>								
<b>Current Assets</b>								
Cash and Cash Equivalents	4,141	9,640	11,046	16,564	25,542	30,965	37,387	43,923
Short-Term Investments	-	-	-	-	-	-	-	-
Notes and Accounts Receivable,	12,539	11,319	15,146	14,644	11,558	12,543	12,691	12,841
Allowance for Doubtful Receivables	(9)	(120)	(40)	-	-	-	-	-
Inventories	14,258	13,797	15,629	15,090	13,994	15,186	15,366	15,546.67
Deferred Income Taxes	493	695	854	-	-	-	-	-
Other Current Assets	1,876	2,193	5,921	3,439	3,189	3,461	3,502	3,543
<b>Total Current Assets</b>	<b>33,298</b>	<b>37,524</b>	<b>48,556</b>	<b>49,737</b>	<b>54,282</b>	<b>62,154</b>	<b>68,945</b>	<b>75,854</b>
<b>Property, Plant and Equipment</b>								
Land	13,031	13,122	14,568	14,190	14,190	14,190	14,190	14,190
Buildings	17,918	18,219	24,360	23,467	25,190	26,913	28,636	30,359
Machinery and Equipment	15,905	15,791	23,448	22,949	24,634	26,319	28,004	29,689
Construction in Progress	140	226	38	1,253	1,345	1,437	1,529	1,621
<b>Total</b>	<b>46,994</b>	<b>47,358</b>	<b>62,414</b>	<b>61,859</b>	<b>65,359</b>	<b>68,859</b>	<b>72,359</b>	<b>75,859</b>
Accumulated Depreciation	(22,035)	(22,951)	(30,080)	(30,071)	(32,279)	(34,487)	(36,695)	(38,903)
<b>Net Property, Plant and Equipment</b>	<b>24,959</b>	<b>24,407</b>	<b>32,334</b>	<b>31,788</b>	<b>33,080</b>	<b>34,372</b>	<b>35,664</b>	<b>36,956</b>
<b>Software &amp; Other intangible assets</b>								
Goodwill	797	835	906	969	969	969	969	969
	2,380	2,021	21,737	16,922	16,922	16,922	16,922	16,922
	3,177	2,856	22,643	17,891	17,891	17,891	17,891	17,891
<b>Other Assets</b>								
Investments in and Advances to	-	-	-	-	-	-	-	-
Investment Securities	110	171	168	771	771	771	771	771
Software & Others	(6)	(5)	(24)	-	-	-	-	-
Deferred Income Taxes	162	123	368	1,381	1,381	1,381	1,381	1,381
Other	558	1,042	831	31	31	31	31	31
<b>Total Other Assets</b>	<b>824</b>	<b>1,331</b>	<b>1,343</b>	<b>2,183</b>	<b>2,183</b>	<b>2,183</b>	<b>2,183</b>	<b>2,183</b>
<b>Total</b>	<b>62,258</b>	<b>66,118</b>	<b>104,876</b>	<b>101,599</b>	<b>107,437</b>	<b>116,600</b>	<b>124,684</b>	<b>132,884</b>
<b>Liabilities and Stockholders' Equity</b>								
<b>Current Liabilities</b>								
Bank Loans	10,245	495	26,171	7,115	7,115	7,115	7,115	7,115
Notes and Accounts Payable, Trade	2,463	3,643	6,161	15,125	14,026	15,221	15,401	15,583
Accrued Expenses	-	-	-	-	-	-	-	-
Income Taxes	348	2,635	2,111	2,012	1,866	2,025	2,049	2,073
Other Current Liabilities	3,997	5,301	10,890	4,665	4,326	4,695	4,750	4,806
Current Portion of Long-Term Debt	1,500	143	270	-	-	-	-	-
<b>Total Current Liabilities</b>	<b>18,553</b>	<b>12,217</b>	<b>45,603</b>	<b>28,917</b>	<b>27,333</b>	<b>29,055</b>	<b>29,315</b>	<b>29,577</b>
<b>Long-Term Debt</b>								
	-	5,419	6,550	20,503	20,503	20,503	20,503	20,503
Deferred Income Taxes	1,541	1,697	1,567	1,582	1,582	1,582	1,582	1,582
Termination and Retirement Benefits	107	122	126	142	142	142	142	142
Other Long-Term Liabilities	47	41	73	1,466	1,466	1,466	1,466	1,466
	11,745	6,057	32,991	27,618	27,618	27,618	27,618	27,618
<b>Total Liabilities</b>	<b>20,248</b>	<b>19,496</b>	<b>53,919</b>	<b>52,610</b>	<b>51,026</b>	<b>52,748</b>	<b>53,008</b>	<b>53,270</b>
<b>Stockholders' Equity</b>								
Common Stock	4,480	4,480	4,480	4,480	4,480	4,480	4,480	4,480
Additional Paid-in Capital	6,087	6,108	6,038	6,112	6,112	6,112	6,112	6,112
Legal Reserve	36,697	40,715	44,459	45,845	52,835	60,285	67,851	75,536
Retained Earnings	1	1	1	2	2	2	2	2
Treasury Stock	(5,507)	(5,384)	(5,159)	(5,371)	(5,371)	(5,371)	(5,371)	(5,371)
<b>Total Stockholders' Equity</b>	<b>41,758</b>	<b>45,920</b>	<b>49,819</b>	<b>51,068</b>	<b>58,058</b>	<b>65,508</b>	<b>73,074</b>	<b>80,759</b>
<b>Accumulated other Comprehensive</b>								
Income	118	560	687	(2,475)	(2,043)	(2,052)	(1,794)	(1,541)
Warrant	77	77	77	0	0	0	0	0
Minority Interests in Subsidiaries	59	66	375	396	396	396	396	396
<b>Total Stockholders' Equity</b>	<b>42,012</b>	<b>46,623</b>	<b>50,958</b>	<b>48,989</b>	<b>56,411</b>	<b>63,852</b>	<b>71,676</b>	<b>79,614</b>
<b>Total</b>	<b>62,260</b>	<b>66,119</b>	<b>104,877</b>	<b>101,599</b>	<b>107,437</b>	<b>116,600</b>	<b>124,684</b>	<b>132,884</b>