Tunas Baru Lampung

Sector: Plantations (Neutral)

BUY
(unchanged)
Rating momentum*: ↓

Gregorius Gary
E-mail: gregorius@bahana.co.id
Phone: +6221 250 5081 ext. 3604

PX:IDR1,010–TP:IDR1,470 (from IDR1,180)
TP/consensus: 110%; TP momentum*: ↑
JCI: 5,377

Sugar rush

- **Beneficiary of 4mn-ton structural deficit in domestic sugar industry:** On the back of a major sugar expansion, TBLA is likely to benefit from Indonesia's penchant for sweets with sugar per capita consumption of 23 kg (exhibit 16), one of the highest in the world. Domestically, we see a huge structural deficit of 4mn tons (exhibit 17) with consumption of 6.5mn tons and production of just 2.5mn tons from 9 sugar-producing regions. This has resulted in Indonesia becoming one of the world's largest sugar importers, bringing in 3mn tons of sugar annually (exhibit 20). In the past 35 years, the sugar deficit widened significantly as domestic demand outstripped production with sugarcane planting areas experiencing only 1.1% CAGR in 1980-2015. Furthermore, productivity was low averaging 5.6 tons/ha, implying the absence of sizeable investments within the local sugar industry.
- **Substantial time required to create a self-sufficient industry:** The government aims for Indonesia to achieve sugar self-sufficiency by 2019. However, on limited land availability and massive investment requirement of IDR82tn (exhibit 22), this sugar self-sufficiency plan is unlikely to be realized given the required additional planting areas of 486k ha, even higher than the current planted area of 456k ha. Hence, we expect the sugar deficit to persist over the long term, allowing both importers and planters like TBLA to benefit from continued undersupply conditions.
- **Likely to book strong growth on industry inefficiency:** In an effort to protect farmers and encourage local players to enter the sugar business, the government has set the sugar floor price at almost twice that of the international raw sugar price (exhibit 23). Indonesia's sugar floor price refers to farmers' cost of production as estimated by the Agriculture Ministry. TBLA's 2017F production cost is at IDR4,402/kg, 27% lower than the industry's average of IDR6,022/kg and 50% lower than the average farmer's cost of production of IDR8,790/kg (exhibit 24). That said, TBLA should enjoy strong 2017F net earnings of IDR891bn, +78% y-y, due to industry inefficiency. It is worth noting that TBLA experiences 83% higher yields of IDR36.5mn/ha from sugar, versus IDR20.5mn/ha for CPO (exhibit 35).

We expect a strong 79% EPS CAGR in 2015-18F; Raised TP

We now expect higher sustainability for TBLA's sugar refinery and sugar mill businesses. Based on the government's recent discussions to allow refined sugar to be sold at the retail level, coupled with plans to prohibit importers lacking sugarcane plantations from obtaining import permits, we believe TBLA's sugar refinery business to be more sustainable, booking 2017F earnings of IDR214bn, 24% of the total. As such, we now raise our target PE for the sugar refinery business from 1x to 2.5x, still a 50% discount to the regional pure refinery player. This gives a higher 12M SOTP-based TP of IDR1,470 (exhibit 46), reflecting 46% upside potential. With this and the positive sentiment from TBLA's CPO segment with a higher average 2017F CPO price of USD750/mt (2016: USD625/mt), the stock's strong market outperformance (exhibit 4) is likely to persist. BUY. Risks: Delays in the completion of TBLA's sugar mills as well as policy risks stemming from lower import quotas and sugar price ceiling.

Exhibit 1. Company information

Market cap (IDRb/USDm)	:	5,395.5/414.4
3M avg.daily t.o.(IDRb/USDm)	:	5,247.7/404.1
Bloomberg code	:	TBLA IJ

Source: Bloomberg

Exhibit 2. Shareholders information

Budi Delta Swakarya (%)	:	27.80
Sungai Budi (%)	:	26.49
Others (%)	:	1.47
Free float (%)	:	45.62

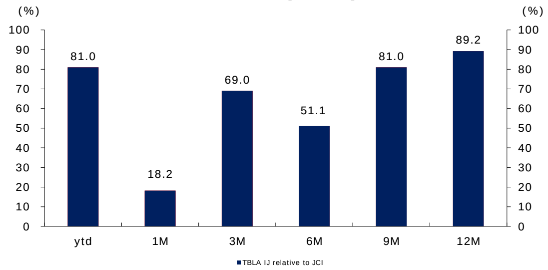
Source: Bloomberg

Exhibit 3. Key forecasts and valuations

Year to 31 Dec	2015	2016F	2017F	2018F
Revenue (IDRbn)	5,331	6,609	8,181	9,465
EBIT (IDRtn)	604	782	1,334	1,651
Net profit (IDRbn)	197	500	891	1,128
Bahana/cns. (%)	-	74	99	119
EPS (IDR)	37	94	167	211
EPS growth (%)	(58)	154	78	27
EV/EBITDA (x)	11.8	9.4	6.3	5.4
PER (x)	27.4	8.1	6.1	4.8
FCFPS (IDR)	(0)	0	(0)	0
FCF yield (%)	(0.0)	0.0	(0.0)	0.0
BVPS (IDR)	536	603	699	785
PBV (x)	1.9	1.3	1.4	1.3
DPS (IDR)	23	28	70	125
Yield (%)	2.3	3.7	7.0	12.4
ROAA (%)	2.4	5.1	8.0	8.9
ROAE (%)	7.4	16.4	25.6	28.5
EBIT margin (%)	11.3	11.8	16.3	17.4
Net gearing (%)	153.3	127.0	134.5	134.3

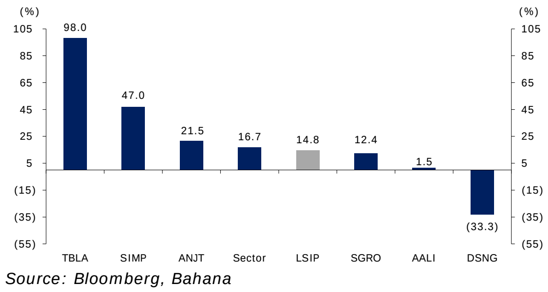
Source: Bloomberg, Bahana estimates
Note: Pricing as of close on 7 October 2016

Exhibit 4. Relative share price performance



Source: Bloomberg, Bahana

Exhibit 5. Relative performance to JCI, ytd



Source: Bloomberg, Bahana

**Based on consensus' recent changes ↑ (up), ↓ (down), ↔ (unchanged)*

SUGAR INDUSTRY OVERVIEW

9 sugar-producing regions in Indonesia generated 2.5mn tons of sugar as of 2015

There are currently 9 sugar-producing regions in Indonesia (exhibit 7): North Sumatera, South Sumatera, Lampung, West Java, Central Java, Jogjakarta, East Java, Gorontalo and South Sulawesi. East Java was the largest sugar-producing province in the country as of 2015, with production of 1.24mn tons or around 50% of total sugar production. East Java had the largest sugarcane planted area of 207k ha as of 2015. Lampung was the second-largest sugar producer, with 757k tons of sugar production and a total planted area of 125k ha. From a total sugarcane plantation area of 456k ha, Indonesia produced around 2.5mn tons of sugar for both domestic and overseas consumption.

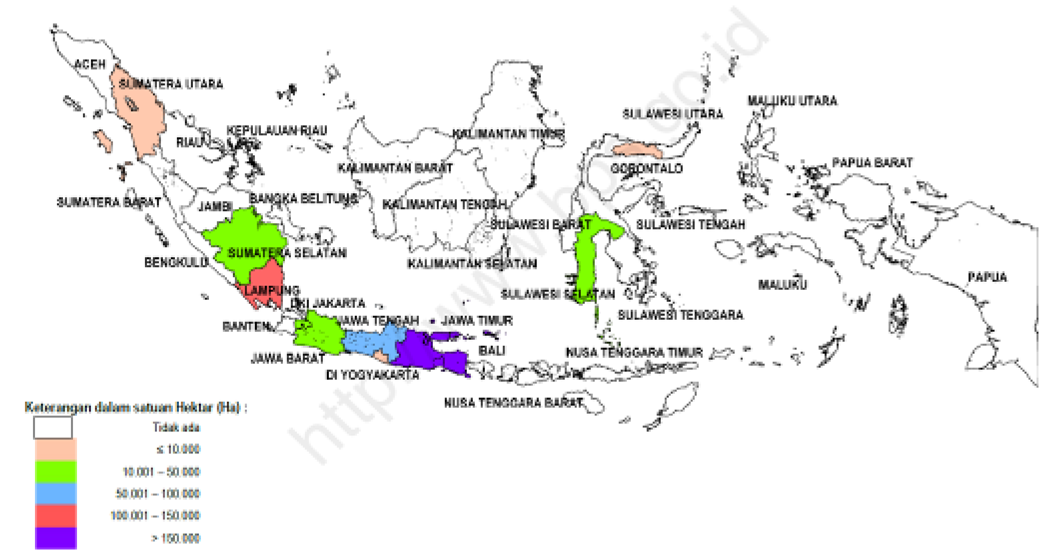
East Java was the largest sugar-producing province …

Exhibit 6. Indonesia's 5 largest sugar-producing provinces, 2015

Source: *Indonesia Statistics Agency*

… supported by the largest plantation area of 207k ha

Exhibit 7. Sugarcane plantation area map, 2015



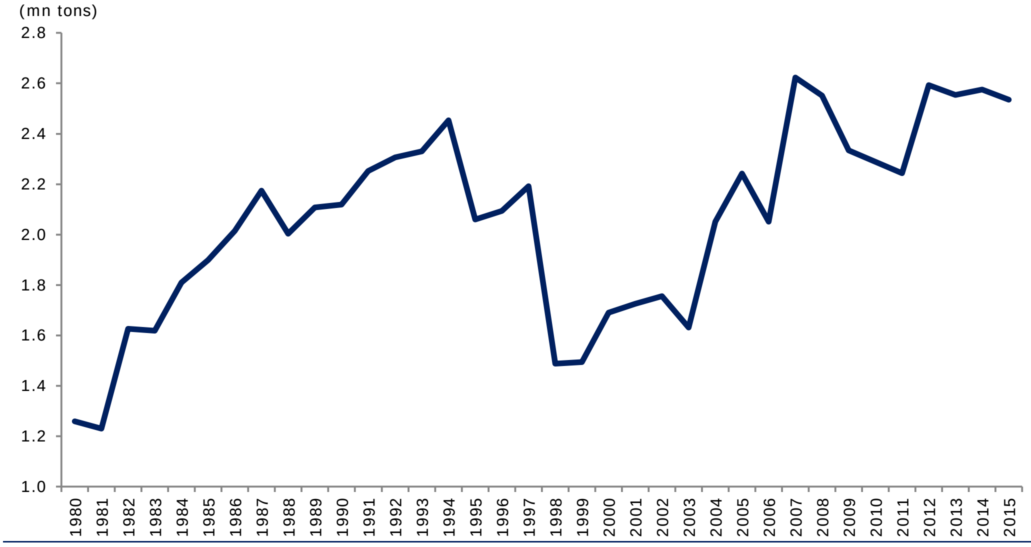
Source: *Indonesia Statistics Agency*

Sugar industry development has occurred at a slow pace …

Indonesia's sugar industry development has occurred at a slow pace. During the past 35 years, domestic sugar production only saw a 2% CAGR, from 1.3mn tons in 1980 to 2.5mn tons in 2015 (exhibit 8). Slow domestic sugar production growth occurred mainly due to low growth in sugarcane planted area development, which only saw a 1.1% CAGR, from 316k ha in 1980 to 456k ha in 2015. Moreover, sugarcane productivity yields in Indonesia have not seen much improvement during this time. The productivity yield was only at 5.6tons/ha as of 2015 (exhibit 9), implying inefficiencies in the sugar production process. These two factors have resulted in low sugar production growth.

Exhibit 8. Domestic sugar production, 1980-2015

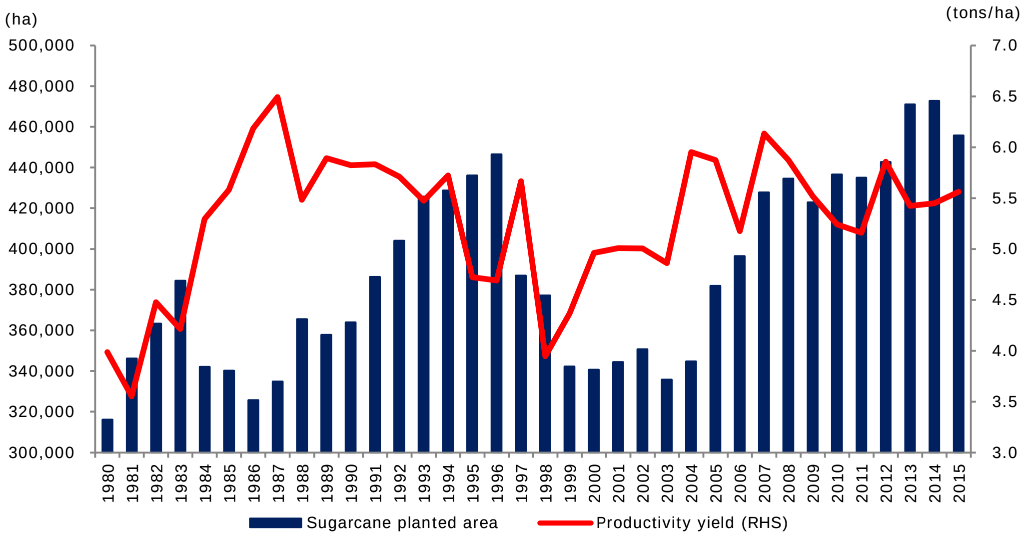
... with only a 2% CAGR for domestic sugar production



Source: Indonesia Statistics Agency, Bahana

Exhibit 9. Sugarcane planted area and productivity yields, 1980-2015

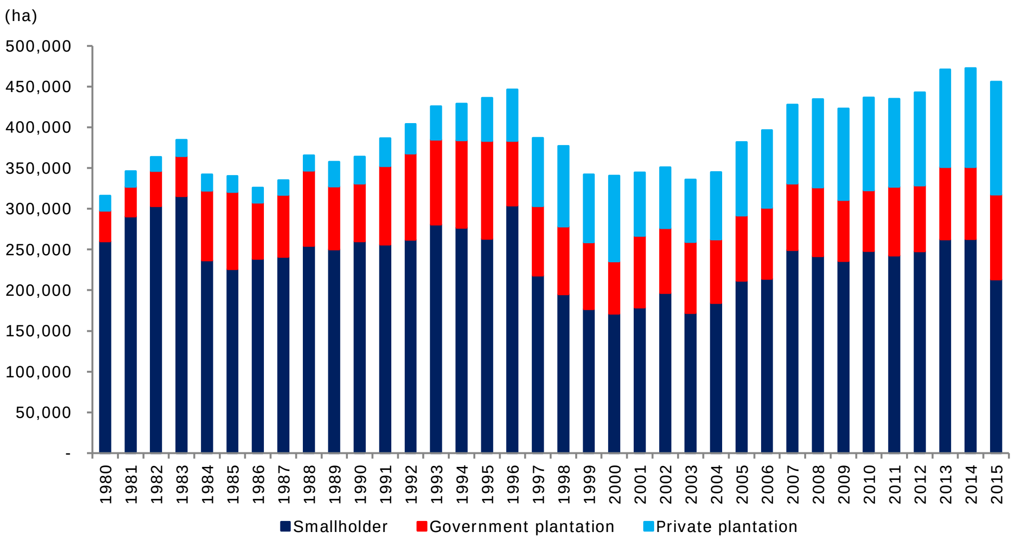
Only a 1.1% CAGR for total planted areas during the period, with low productivity of 5.6 ton/ha as of 2015



Source: Indonesia Statistics Agency, Bahana

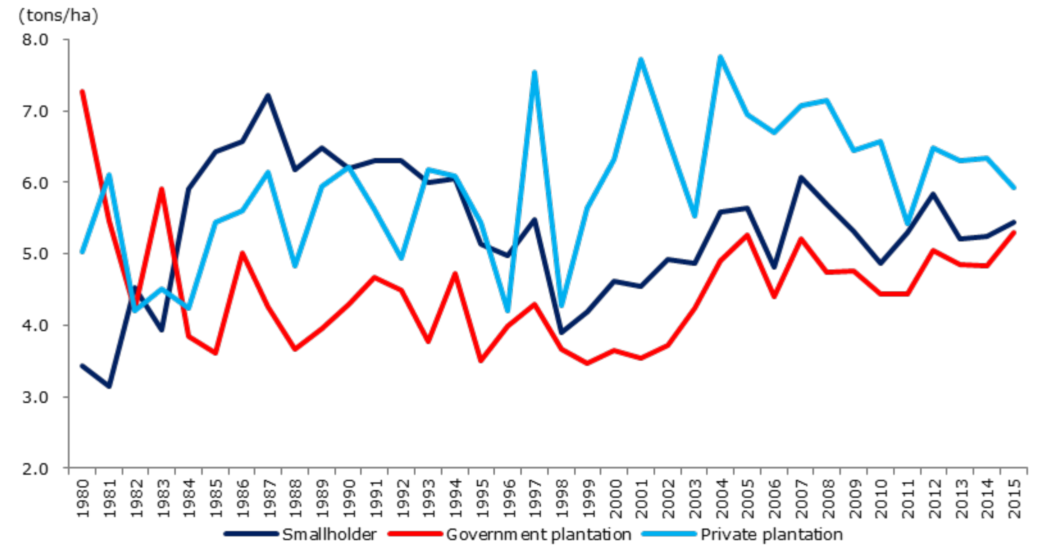
Exhibit 10. Sugarcane area ownership breakdown, 1980-2015

Majority of sugarcane plantations owned by smallholders



Source: Indonesia Statistics Agency, Bahana; Smallholder: owner of small farms (20 ha or less), usually to support a single family

Exhibit 11. Sugarcane productivity yield breakdown by ownership, 1980-2015



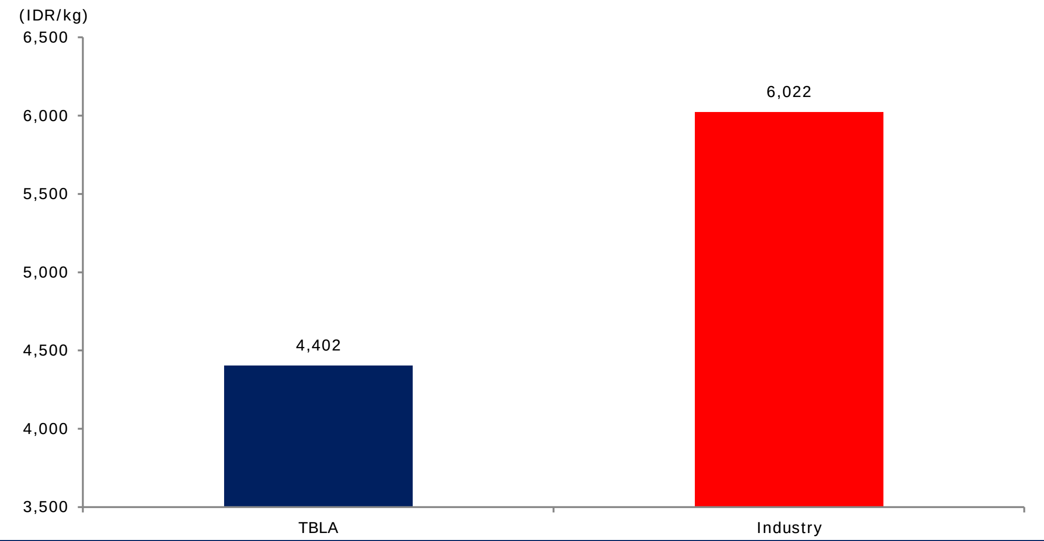
Source: Indonesia Statistics Agency, Bahana

Private sector features higher productivity yield …

Private plantations, which contributed 30% of Indonesia's overall plantation area as of 2015, have the highest productivity yields (exhibit 11) compared to the government and smallholdings, at 5.9 tons/ha, with the smallholdings yield at 5.3 tons/ha and the government's yield at only 4.5 tons/ha. We think this implies that the government has not invested in the sugar industry sufficiently to increase productivity. Furthermore, underinvestment has created inefficiency, which has resulted in high production costs. On average, the Indonesia sugar industry, represented by Perkebunan Nusantara (PTPN) as state-owned sugar producers, had an average production cost at IDR6,022/kg in 2015 while private plantations such as TBLA had 27% lower production costs of IDR4,402/kg due to higher plantation yields and extraction rates.

… at 5.9 tons/ha while government plantation yield is only 4.5 tons/ha

Exhibit 12. Sugar production cost, TBLA versus industry, 2015



Source: Bahana, Company

TBLA's production cost was 27% lower than the industry's in 2015

Problems in developing sugarcane plantation areas arise from difficulties in finding a suitable region, as the plantation area needs to be close to the sugar mill to preserve the sugarcane from deterioration. As of 2015, 57 out of 69 sugar mills in operation were concentrated in the Java region (exhibit 13), where no available land was left to increase the sugarcane plantation area. In addition, Indonesia has suffered from low extraction rates as most sugar mills use obsolete technology. Of the 69 mills, a total of 47 sugar mills, contributing 61% of total milling capacity (exhibit 15), were built during Dutch colonial times (exhibit 14) and have not made technological improvements to increase productivity.

Limited availability of sugarcane plantation area hinders expansion

Exhibit 13. Sugar mill locations

Source: Bahana

57 out of 69 sugar mills are located in the Java region

Exhibit 14. Watoetoelis sugar mill plant, East Java

Source: Bahana

State-owned PTPN's Watoetoelis sugar mill was built in 1839 and still operates without any major changes to improve efficiency

Exhibit 15. Indonesia sugar mills: age and milling capacity breakdown, 2015

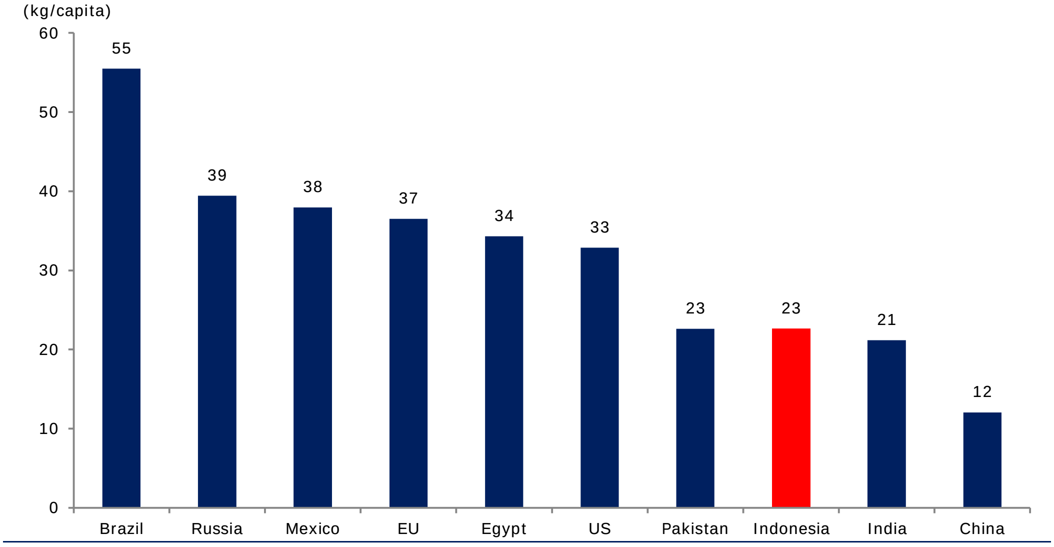
Age (years)	Number of plants	Percentage (%)	Milling capacity (tcd)
0-25	5	7.2	29,928
26-50	14	20.3	43,195
50-100	3	4.3	9,256
>100	47	68.1	130,510
Total	**69**	**100**	**212,888**

Source: Bahana

68% of sugar mills in Indonesia, contributing 61% milling capacity, are more than 100 years old

Exhibit 16. Global sugar consumption per capita, 2015

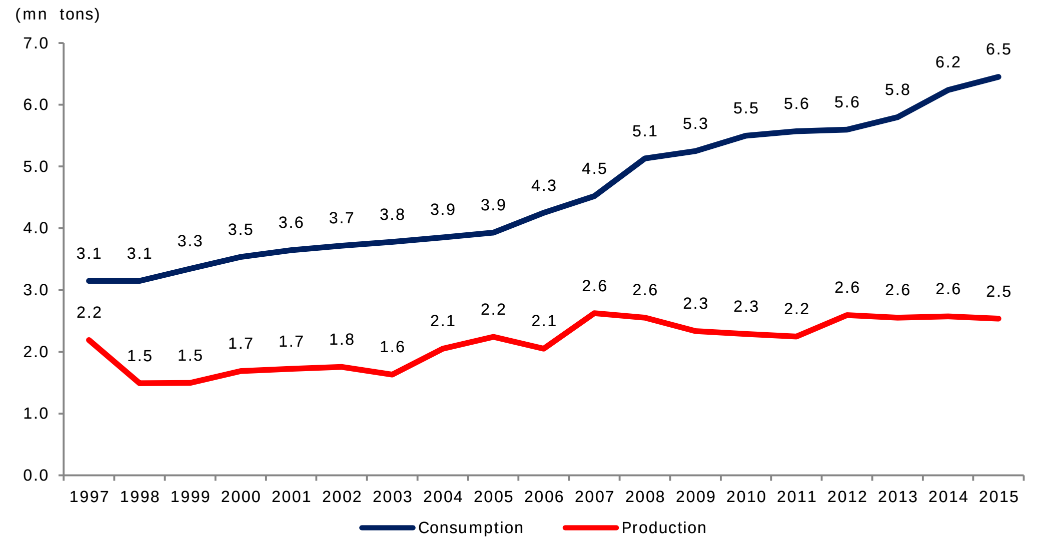
Indonesia has the 8th largest per capita sugar consumption in the world



Source: USDA, Bahana

Exhibit 17. Indonesia sugar production and consumption, 1997-2015

Sugar deficit due to limited development of sugar production outpaced by consumption growth

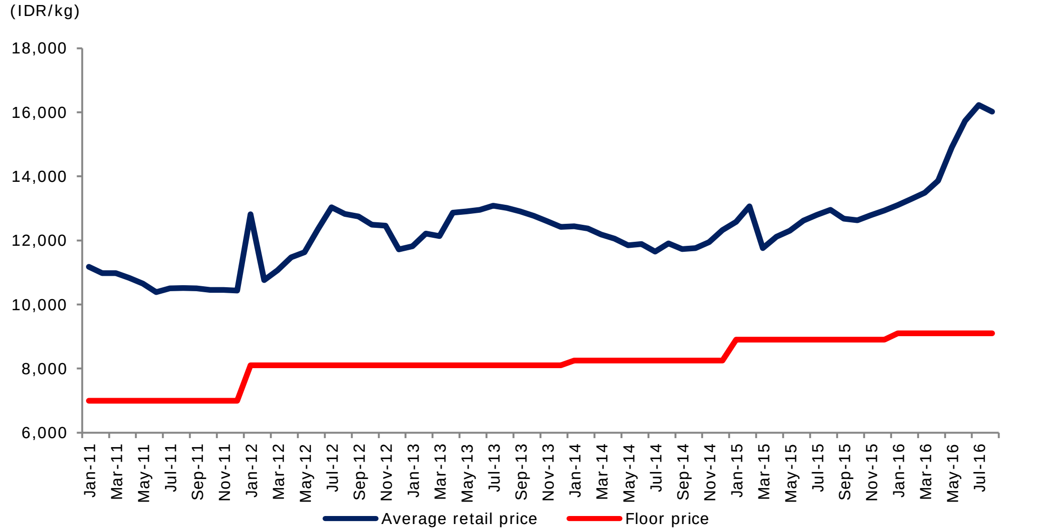


Source: Bloomberg, Bahana

Widening sugar deficit has driven retail price …

On the other hand, Indonesia is one of 10 countries with the highest sugar consumption at 23 kg/capita in 2015 (exhibit 16). Domestic sugar consumption doubled from 3.1mn tons in 1997 to 6.5mn tons, for an 18-year CAGR of 10.1%. The rapid growth of sugar consumption, which has outpaced the limited development of sugar production, has created a structural deficit in Indonesia's sugar industry. The deficit has worsened over time from 850k tons in 1997 to 4mn tons in 2015, creating a significant gap (exhibit 17). The prolonged undersupply conditions in the sugar market also have driven the average retail price from IDR10,400/kg in June 2011 to as high as IDR16,200/kg in July 2016 (exhibit 18).

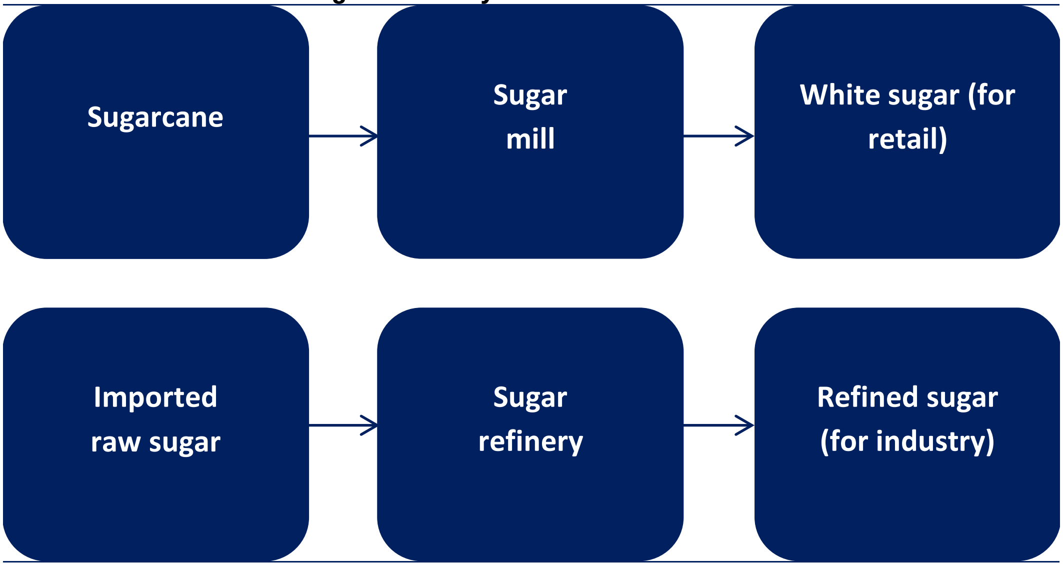
Exhibit 18. Indonesia's sugar retail price and floor price, Jan 2011-Aug 2016



Source: Bahana, Bloomberg

… to 5-year high at IDR16,200/kg in July 2016

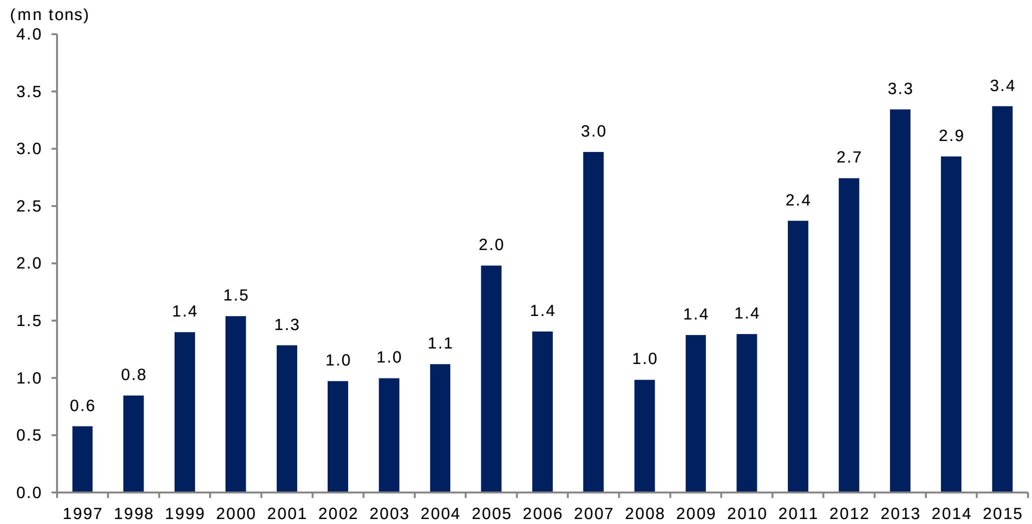
Exhibit 19. Indonesia sugar industry breakdown



Source: Company, Bahana

Indonesia's sugar industry is divided into 2 segments: white sugar for retail consumption and refined sugar for F&B industry

Exhibit 20. Indonesia sugar import volume, 1997-2015



Source: Indonesia Statistics Agency

Indonesia is dependent on sugar imports to fulfil consumption

Indonesia relies heavily on sugar imports (exhibit 20) to fulfil the domestic demand and to control the market price amid sugar shortages. As stipulated under Law no.117/2015, private players can import raw sugar and refined sugar after obtaining approval from Trade Ministry, while only SOEs can import white sugar. Raw sugar, mainly imported from Brazil, India, China and Thailand, is used as a raw material to produce refined sugar for the F&B industry (exhibit 19). The Government also maintains import quotas to develop the domestic sugar industry and attain self-sufficiency in sugar production. The quota is shared by Indonesia's 8 sugar refining companies with a total production capacity of 3.6mn tons, and Wilmar group dominates the quota with 960k tons, or 27% of the total capacity. TBLA obtained 262k ton of the sugar import quota in 2016.

Private players can only import raw sugar and refined sugar products

Exhibit 21. List of sugar refining companies in Indonesia

Company	Location	Year established	Total capacity (tons)
PT Angels Products	Serang, Banten	1996	500,000
PT Jawamanis Rafinasi (Wilmar)	Cilegon, Banten	2002	160,000
PT Sentra Usahatama Jaya	Cilegon, Banten	2004	540,000
PT Permata Dunia Sukses Utama	Cigading, Banten	2005	390,000
PT Duta Sugar International (Wilmar)	Cilegon, Banten	2005	800,000
PT Dharmapala Usaha Sukses	Cilacap, Central Java	2007	250,000
PT Sugar Labinta	South Lampung	2007	540,000
PT Makassar Tene	South Sulawesi	2009	200,000
TBLA	Lampung	2014	212,000
Total			**3,592,000**

Source: Bahana

Wilmar group dominated the sugar refining industry, accounting for 27% of total industry capacity

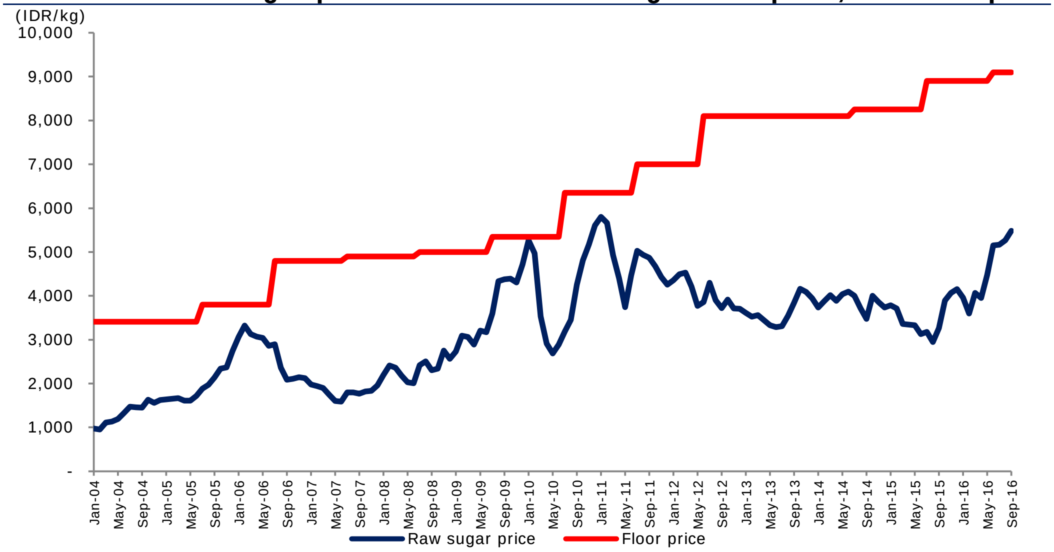
Exhibit 22. Total investment required in 2017F, worst, base and best scenarios

Details	Worst	Base	Best
Sugar consumption (tons)	6,976,326	6,976,326	6,976,326
Existing plantation area (ha)	464,981	464,981	464,981
Existing plantations yield (tons/ha)	80	80	90
Existing sugar extraction rate (%)	7	7	10
Existing sugar production (tons)	2,629,932	2,603,893	4,184,829
Sugar deficit (tons)	4,346,394	4,372,433	2,791,498
New plantation yield (tons/ha)	80	90	90
New extraction rate (%)	7	10	10
Additional plantation area required (ha)	**776,142**	**485,826**	**310,166**
Additional sugar mill plant needed (units)	37	37	24
Avg. land cost (IDRmn/ha)	20	20	20
Avg. maintenance cost (IDRmn/ha)	25	25	25
Sugar mill capacity (tons)	120,000	120,000	120,000
Sugar mill capex (IDRbn)	1,300	1,300	1,300
Total land acquiring cost needed (IDRbn)	15,522.84	9,716.52	6,203.33
Total maintenance cost needed (IDRbn)	31,028.07	23,770.17	19,378.68
Total sugar mill capex needed (IDRbn)	48,100	48,100	31,200
Total cost (IDRbn)	**94,651**	**81,587**	**56,782**

Source: Bahana estimates

IDR82tn and 486k ha required to address the sugar deficit in 2017F

Exhibit 23. Raw sugar price and Indonesia's sugar floor price, Jan 04-Sep 16



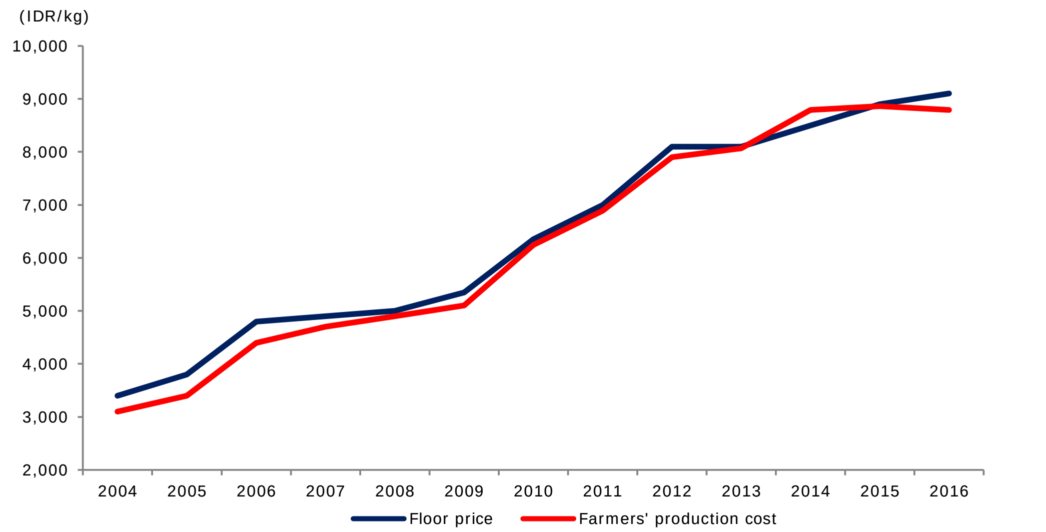
Source: Bloomberg, Bahana

Sugar floor price first introduced in 2004 …

Apart from the plan to match supply with the domestic demand for sugar in Indonesia, the Government introduced a sugar floor price (exhibit 23) through the issuance of Ministerial Decree no.527/2004 for sugar imports to protect farmers from low selling prices and to encourage local players in planting sugarcane. Indonesia's sugar floor prices are aligned with farmers' cost of production estimated by the Agriculture Ministry (exhibit 24). Declining yields and increases in land rental costs, which contributed c.30% of the total production cost, were the main drivers for farmers' increase in the cost of production. Moreover, the sugar floor price also moved in line with the increase in PTPN's COGS. We believe TBLA, with a lower production cost compared to farmers' and PTPN's production cost, is likely to enjoy supernormal profits, while the inefficiencies in sugar industry are being addressed.

… to protect farmers from low selling price

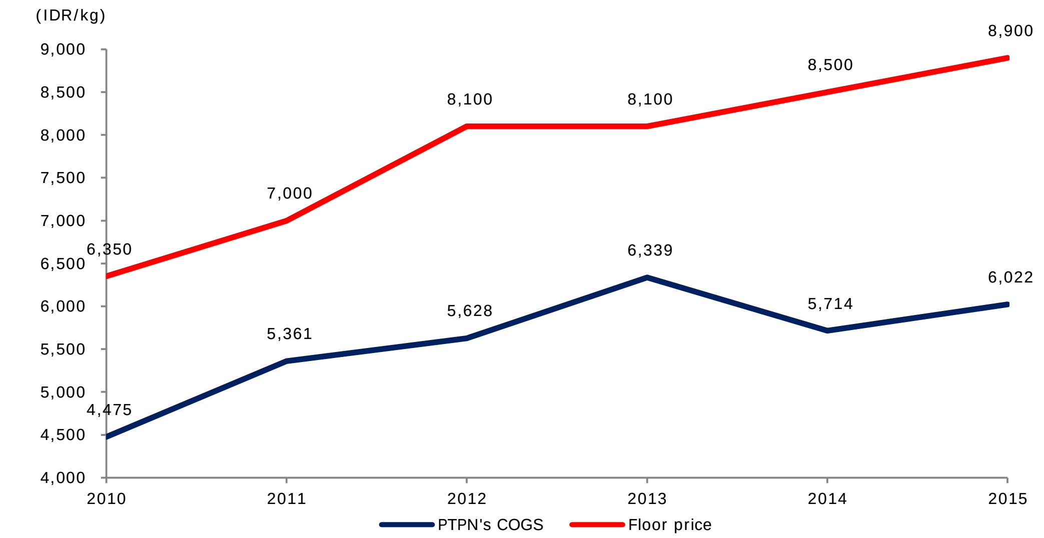
Exhibit 24. Sugar floor price and farmers' production cost, 2004-2016



Source: Bahana, Agriculture Ministry

Floor price aligned with farmers' production cost

Exhibit 25. PTPN's COGS and sugar floor price, 2010-2015



Source: Bahana, Company

Sugar floor price also moves in line with PTPN's COGS

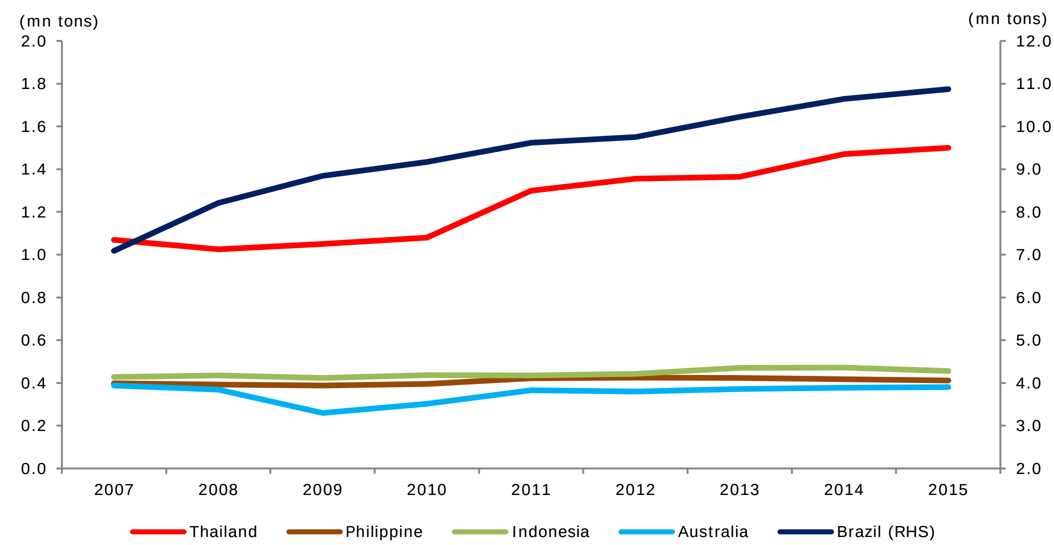
Exhibit 26. Sugarcane production cost, 2014

Production cost	Amount (IDRmn/ha)
Seeds	3.1
Fertilizers	2.9
Pesticides	0.1
Wages	
Land processing	0.9
Planting shade crops	0.0
Planting estate crops	0.8
Maintenance	2.0
Fertilizing	0.7
Pest controlling	0.1
Harvesting	1.8
Land rent cost	7.8
Equipment rent cost	0.3
Fuel	0.1
Agricultural services	1.2
Others	2.4
Production cost - total	**24.2**

Source: Indonesia Statistics Agency, Bahana

Land rental cost accounts for 32% of total sugarcane production cost

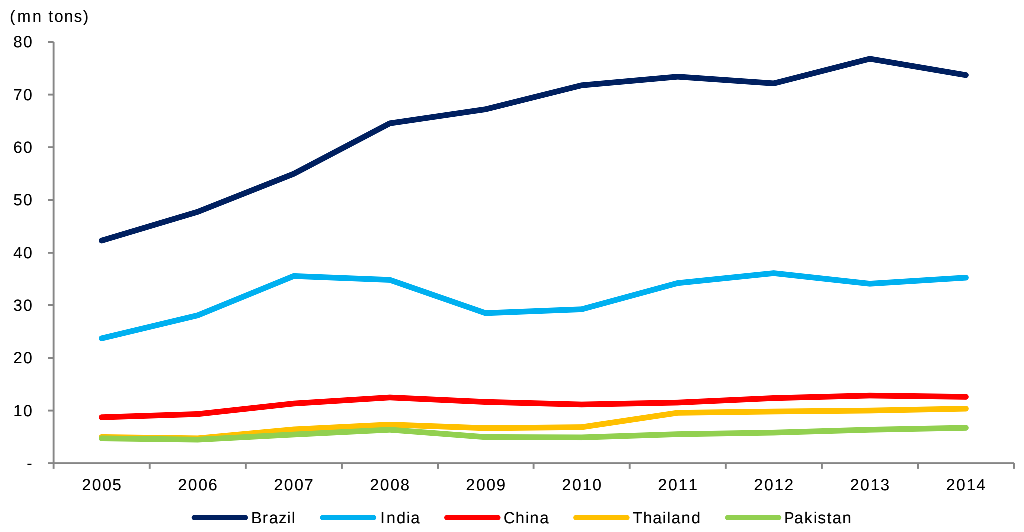
Exhibit 27. World sugarcane planted area, 2000-2015



Source: Indonesia Statistics Agency, FAO, Bahana

Brazil had the largest sugarcane planted area at 10.9mn ha in 2015 ...

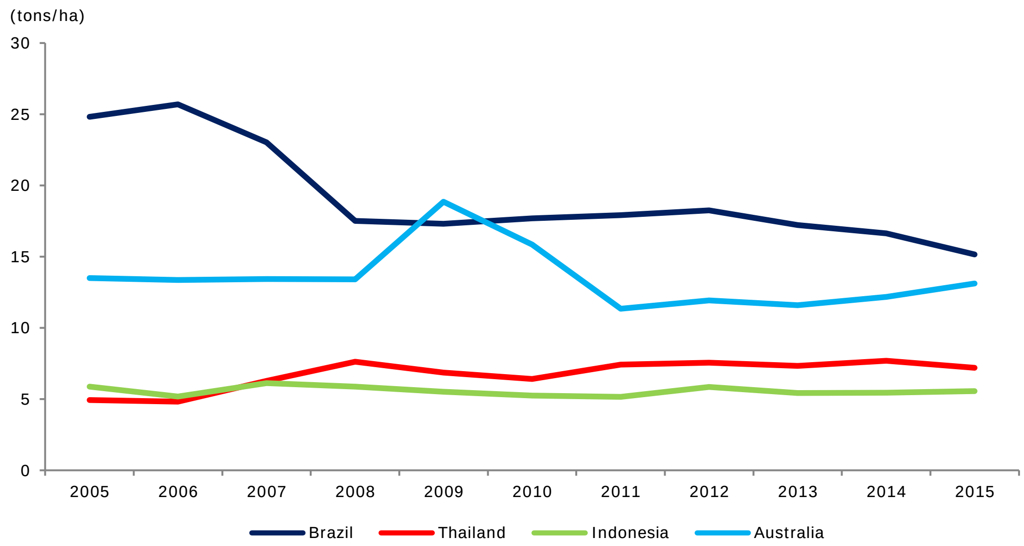
Exhibit 28. Top 5 sugar-producing countries, 2005-2014



Source: Bloomberg

... and produced 73mn tons or 42% of global production

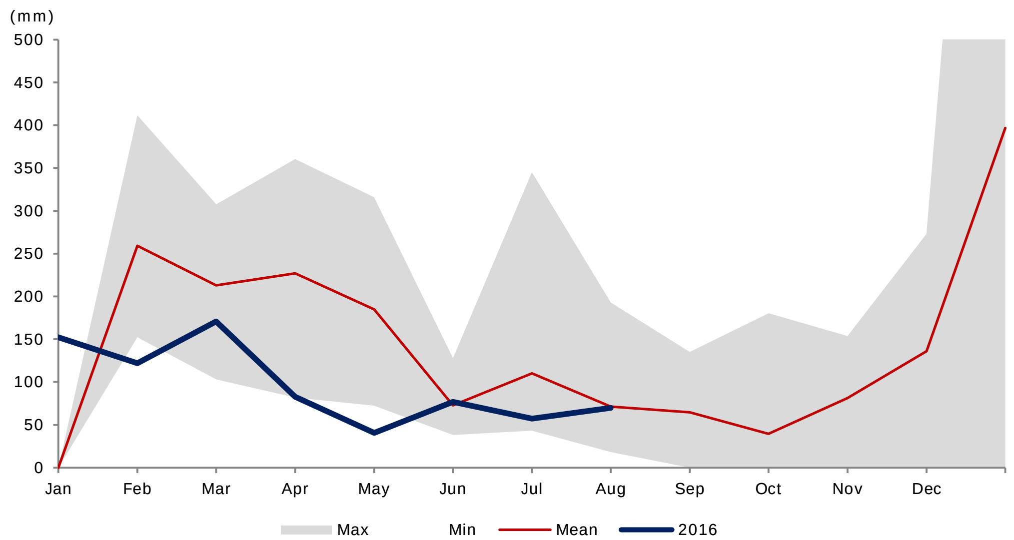
Exhibit 29. World productivity yield, 2015



Source: USDA, Bloomberg, Bahana

Australia had much higher productivity yield compared to Indonesia, given similar plantation area at c.400k ha

Exhibit 30. Lampung rainfall data, 2006-August 2016



Source: Bahana

Rainfall is currently approaching 10-year average in Lampung, Sumatra

Exhibit 31. Production cost comparison

(IDR/kg)	TBLA's white sugar	TBLA's refined sugar	PTPN's white sugar
Raw material cost	-	5,000	-
Maintenance cost	2,402		2,709
Production cost	2,000	100	3,313
Import duty	-	550	-
COGS	**4,402**	**5,650**	**6,022**

Source: Company, Bahana

TBLA's production cost for white sugar is 22% cheaper than its refined product, or 27% compared to PTPN's

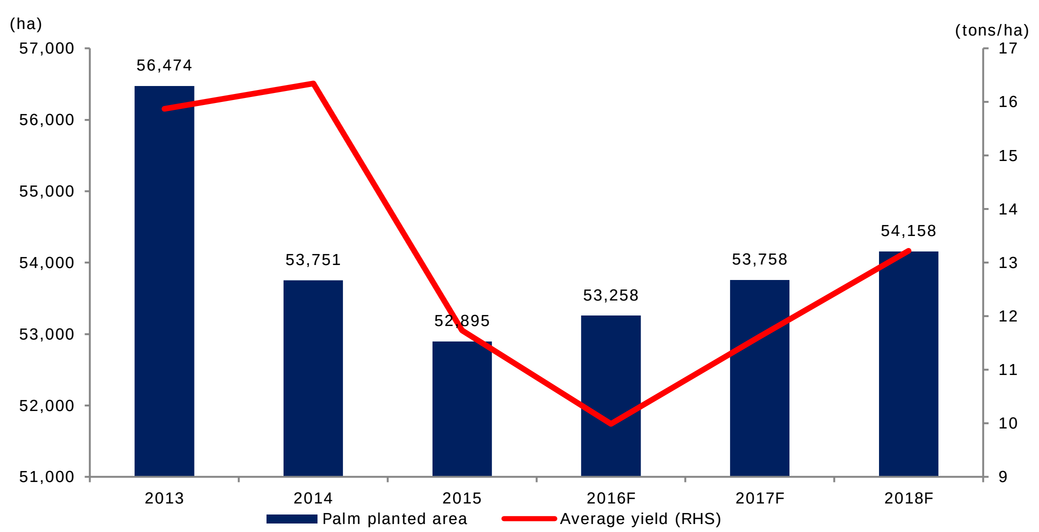
Exhibit 32. List of upcoming sugar mill investments in Indonesia

Company	Location	Sugar mill capacity (tons)
CPIN, Djarum and Wings group	Sumba, East Nusa Tenggara	150,000
	South Sumatera	150,000
Wilmar group	Manggarai, East Nusa Tenggara	150,000
MEDC	Papua	n/a

Source: Bahana, Bisnis.com

Several Indonesian conglomerates are reportedly planning to enter the sugar business

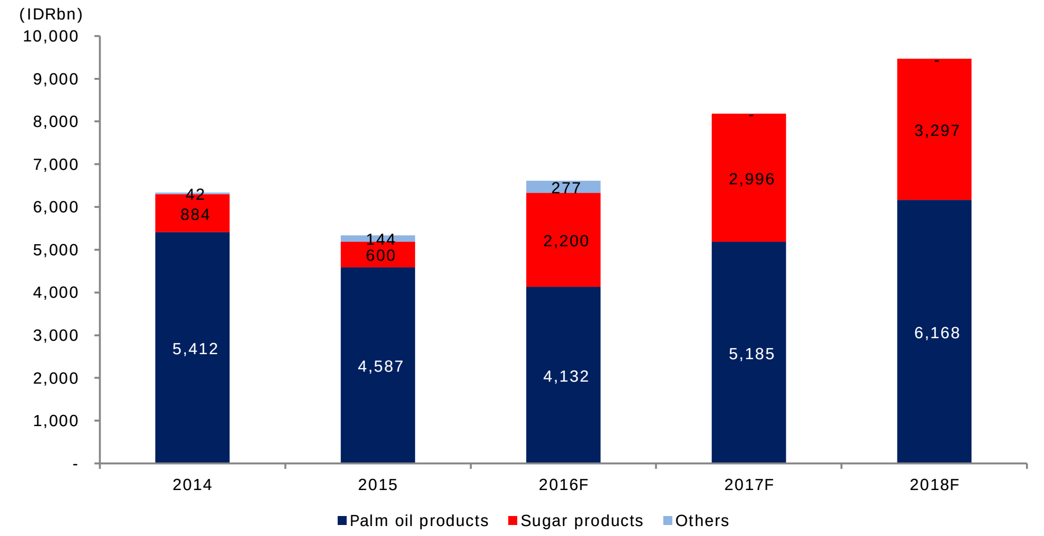
Exhibit 33. TBLA's palm plantation area & average yield, 2013-2018F



Source: Company, Bahana

Yield expected to increase post La Nina

Exhibit 34. TBLA revenue contribution per segment, 2014-2018F



Source: Bahana, Company

Sugar business to contribute 37% of total revenue in 2017F

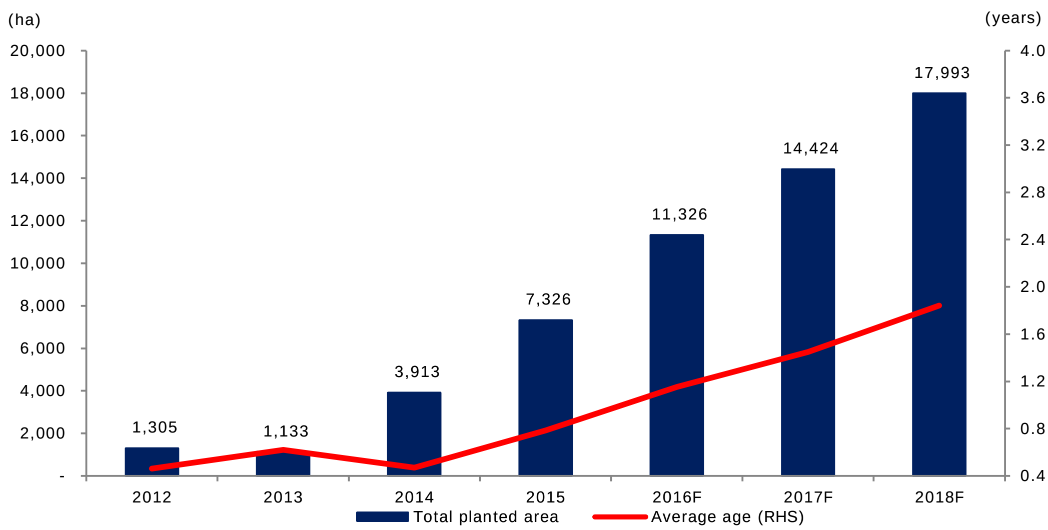
Exhibit 35. Sugar vs. CPO gross profit per ton, 2017F

	Sugar			CPO		
(IDRmn/ha)	Worst	Base	Best	Worst	Base	Best
Yield (tons/ha)	8.5	8.5	8.5	4.5	4.5	4.5
Price (IDRk/ton)	9,100	10,000	12,500	5,980	9,000	13,000
Price less 10% VAT (IDRk/ton)	8,190	9,000	11,250			
Revenue	69.6	76.5	95.6	26.9	40.5	58.5
Planting & maintenance cost	20.0	20.0	20.0	15.0	15.0	15.0
Processing cost	20.0	20.0	20.0	5.0	5.0	5.0
Gross profit	29.6	36.5	55.6	6.9	20.5	38.5

Source: Bahana estimates

Under a base case scenario, sugar provides 78% higher gross profit per ton compared to CPO

Exhibit 36. TBLA's sugarcane planted area & average age, 2012-2018F



Source: Company, Bahana

TBLA's total sugarcane planted area to reach 17.9k ha by 2018F

Exhibit 37. TBLA's sugarcane plantation in Terbanggi, Lampung

Source: Bahana

Sugarcane was being harvested, while we visited

Exhibit 38. TBLA's sugarcane plantation, mill & refinery location

Source: Company

The 120k-ton sugar mill plant is strategically located within the company's sugarcane plantation area

Exhibit 39. TBLA's seaport at Way Lunik, Lampung

Source: Company

Private seaport with 600tons/hour loading capacity, easing distribution bottleneck to large market in Java and Sumatera

Exhibit 40. TBLA's sugar mill plant is near completion

Source: Bahana

The sugar mill plant will commence its operation in early 2017, …

Exhibit 41. Inside the sugar mill plant

Source: Bahana

… featuring 5-stage milling process …

Exhibit 42. Vacuum boilers

Source: Bahana

… and vacuum boilers to support high sugar extraction rate at 10% in 2017F

Exhibit 43. TBLA's sugar refinery plant

Source: Bahana

Sugar refinery with production capacity of 216k tons p.a.

Exhibit 44. TBLA's imported raw sugar inventory

Source: Bahana

20k tons of raw sugar imported from Brazil

Exhibit 45. Imported raw sugar, before and after refining process

Source: Bahana

Refining process results in white color and higher sucrose content of above 99% for sugar

Exhibit 46. Sum-of-the-parts valuation

Segments	Net profit (IDRbn)	Method	Value
Palm oil business	409.9	2017F PE of 9.0x	3,689
Sugar mill business	267.3	2017F PE of 13.5x	3,608
Sugar refinery business	213.9	2017F PE of 2.5x	214
Total value (IDRbn)			7,833
Shares outstanding (mn)			5,342
Value/Share (IDR)			**1,470**

Source: Bahana forecasts

Exhibit 47. Peers comparison, 2016F-2017F

	Market cap (USDb)	PER (x) 2016F	PER (x) 2017F	PBV (x) 2016F	PBV (x) 2017F	EV/EBITDA (x) 2016F	EV/EBITDA (x) 2017F	Div. yield (%) 2016F	Div. yield (%) 2017F	ROE (%) 2016F	ROE (%) 2017F
CPO business	**31.3**	**27.1**	**22.1**	**2.6**	**2.3**	**16.0**	**14.0**	**2.3**	**2.7**	**9.9**	**10.5**
ASTRA AGRO LESTARI TBK PT	2.3	18.8	15.4	1.8	1.7	10.4	8.6	1.8	2.5	10.5	11.6
SALIM IVOMAS PRATAMA TBK PT	0.6	17.3	12.9	0.5	0.5	6.5	5.7	2.1	2.5	2.9	3.8
SAMPOERNA AGRO TBK PT	0.3	14.5	11.7	1.1	1.0	9.4	6.8	1.2	1.8	7.6	9.3
TUNAS BARU LAMPUNG TBK PT	0.4	8.1	6.1	1.3	1.4	9.4	6.3	3.7	7.0	16.4	25.6
PP LONDON SUMATRA INDONES PT	0.8	19.9	14.2	1.4	1.3	9.9	7.6	2.0	2.2	6.7	9.0
SIME DARBY BERHAD	12.0	31.2	22.9	1.6	1.5	16.1	14.0	2.6	3.1	5.3	6.7
IOI CORP BHD	6.7	26.2	24.8	5.3	4.1	19.2	16.9	2.2	2.4	18.9	16.7
KUALA LUMPUR KEPONG BHD	6.2	24.4	22.5	2.5	2.4	15.2	14.3	2.4	2.5	11.2	11.9
GENTING PLANTATIONS BHD	2.0	34.0	25.1	1.9	1.8	20.9	16.6	0.7	0.9	5.3	7.0
Sugar mill business	**2.3**	**93.0**	**22.9**	**2.8**	**2.5**	**7.2**	**6.0**	**2.0**	**2.3**	**5.7**	**9.6**
KHON KAEN SUGAR INDUSTRY PCL	0.5	20.6	16.5	1.3	1.2	12.7	11.4	3.2	4.4	5.5	7.9
BURIRAM SUGAR PCL	0.2	22.2	18.2	3.6	3.4	21.5	14.0	1.7	2.1	16.4	17.8
NANNING SUGAR INDUSTRY CO -A	1.1	175.8	30.3	4.6	4.0	na	na	na	na	5.9	12.7
ROGERS SUGAR INC	0.5	14.8	15.1	na	na	10.9	9.9	5.5	5.5	na	na
Sugar refinery business	**0.2**	**6.0**	**5.0**	**1.2**	**1.1**	**2.3**	**2.0**	**9.1**	**11.2**	**19.9**	**18.3**
DANGOTE SUGAR REFINERY PLC	0.2	6.0	5.0	1.2	1.1	2.3	2.0	9.1	11.2	19.9	18.3
Weighted Average	**33.8**	**126.1**	**50.0**	**6.5**	**5.8**	**25.5**	**21.9**	**13.3**	**16.2**	**35.5**	**38.4**

Source: Bloomberg, Bahana Note: Pricing as of 7 October 2016

Tunas Baru Lampung

Year to 31 December	2014	2015	2016F	2017F	2018F
PROFIT & LOSS (IDRbn)					
Sales	**6,338**	**5,331**	**6,609**	**8,181**	**9,465**
Gross profit	**1,293**	**1,170**	**1,452**	**2,187**	**2,555**
EBITDA	**1,065**	**598**	**999**	**1,619**	**1,988**
Depreciation	270	(6)	217	285	337
EBIT	**795**	**604**	**782**	**1,334**	**1,651**
Net interest inc./(expense)	(201)	(219)	(236)	(278)	(308)
Forex gain/ (losses)	(105)	(165)	34	-	-
Other income/ (expense)	73	43	50	62	72
Pre-tax profit	**562**	**263**	**630**	**1,119**	**1,415**
Taxes	(126)	(62)	(126)	(224)	(283)
Minority interest	(3)	(4)	(4)	(4)	(4)
Net profit	**433**	**197**	**500**	**891**	**1,128**
BALANCE SHEET (IDRbn)					
Cash and equivalents	520	296	799	662	650
Trade receivables	711	797	575	858	981
Inventories	956	1,146	937	1,264	1,389
Fixed assets	2,843	4,442	5,337	6,144	6,765
Other assets	2,288	2,601	2,551	3,074	3,637
Total assets	**7,328**	**9,293**	**10,208**	**12,012**	**13,433**
Interest bearing liabilities	3,194	4,690	4,887	5,687	6,287
Trade payables	292	330	297	371	406
Other liabilities	1,388	1,386	1,778	2,186	2,506
Total liabilities	**4,875**	**6,406**	**6,962**	**8,244**	**9,199**
Minority interest	**18**	**21**	**26**	**33**	**38**
Shareholders' equity	**2,436**	**2,866**	**3,219**	**3,736**	**4,196**
CASH FLOW (IDRbn)					
EBIT	795	604	782	1,334	1,651
Depreciation	270	(6)	217	285	337
Working capital	(308)	(0)	629	(619)	(299)
Other operating items	(214)	(517)	166	(150)	(270)
Operating cash flow	**543**	**80**	**1,794**	**850**	**1,419**
Net capital expenditure	(999)	(713)	(1,345)	(1,420)	(1,368)
Free cash flow	**(455)**	**(632)**	**450**	**(569)**	**51**
Equity raised/(bought)	289	(5)	-	-	-
Net borrowings	105	360	195	801	600
Other financing	(67)	161	(142)	(369)	(663)
Net cash flow	**(128)**	**(116)**	**503**	**(136)**	**(12)**
Cash flow at beginning	648	520	296	799	662
Cash flow at end	**520**	**296**	**799**	**662**	**650**
RATIOS					
ROAE (%)	20.5	7.4	16.4	25.6	28.5
ROAA (%)	6.4	2.4	5.1	8.0	8.9
Gross margin (%)	20.4	22.0	22.0	26.7	27.0
EBITDA margin (%)	16.0	15.4	15.1	20.2	21.5
EBIT margin (%)	12.5	11.3	11.8	16.3	17.4
Net margin (%)	6.8	3.7	7.6	10.9	11.9
Payout ratio (%)	70.3	28.3	75.0	75.0	75.0
Current ratio (x)	1.1	1.1	0.7	0.8	0.8
Interest coverage (x)	2.6	3.8	2.7	3.2	4.7
Net gearing (%)	109.8	153.3	127.0	134.5	134.3
Debts to assets (%)	43.6	50.5	47.9	47.3	46.8
Debtor turnover (days)	32	58	32	38	38
Creditor turnover (days)	17	27	21	23	21
Inventory turnover (days)	63	94	66	77	73
MAJOR ASSUMPTIONS					
FFB production (k tons)	719	542	462	527	577
Growth (%)	(3)	(25)	(15)	14	9
CPO production (k tons)	214	296	213	261	299
Growth (%)	1	38	(28)	22	14
ASP CPO (IDR/kg)	9,000	7,500	8,000	8,923	9,538
Sugar plantation (ha)	1,133	3,913	7,326	11,326	14,424
ASP Sugar (IDR/kg)	na	na	11,000	10,000	10,000
Avg. exchg. rate (IDR/USD)	11,875	13,393	13,400	13,000	13,000

Source: Company, Bahana estimates

2017F revenue at IDR8,181bn, +23.8% y-y on accelerated contribution from sugar business

Increasing debt levels ...

... to finance expansion of its palm and sugarcane plantations

Improved margins in 2017F as a result of recovery in CPO prices

FFB production to recover in 2017-18F post La Nina

Gregorius Gary (gregorius@bahana.co.id) +6221 250 5081 ext. 3604

Daiwa Capital Markets

BAHANA
PT Bahana Securities

Asiamoney's 2013 Best Domestic Equity House
2014 FinanceAsia's Best Equity House
2015 Institutional Investors Highest Ranked Local Research House
2015 Global Banking & Finance Review Best Research House
Alpha Southeast Asia 2007-2016 Best Equity House

Research: +62 21 250 5081


Harry Su
harry.su@bahana.co.id
Senior Associate Director
Head of Strategy & Research
ext 3600
direct: +62 21 250 5735


Handi Huta Jaya
handi@bahana.co.id
Strategist and Product Head
ext 3610


Leonardo Henry Gavaza, CFA
leonardo@bahana.co.id
Senior Research Manager
Auto, Telco, Infrastructure
ext 3608


Fakhrul Fulvian
fakhrul.fulvian@bahana.co.id
Economist
ext 3602


Sanni Satrio Dwi Utomo
sanni@bahana.co.id
Research Analyst
Industrial Estates, Property
ext 3611


Renaldy Effendy
renaldy@bahana.co.id
Research Analyst
Consumer, Healthcare
ext 3606


Michael W Setjoadi
michael@bahana.co.id
Research Analyst
Consumer, Poultry
ext 3620


Gregorius Gary
gregorius@bahana.co.id
Research Analyst
Transportation, Plantations
ext 3604


Muhammad Wafi
wafi@bahana.co.id
Technical Analyst
ext 3609


Mardy Oramahi Alhusnah
mardy@bahana.co.id
Research Analyst
Small Caps
ext 3621


Gilang Purnama
gilang.purnama@bahana.co.id
Research Analyst
Industrials
ext 3601


Sarah Jessica Hutapea
sarah.jessica@bahana.co.id
Macro & Fixed Income Associate
ext 3693


Fikri Dzikrian Amrullah
fikri@bahana.co.id
Research Associate
ext 3623


Fauzan Luthfi Djamal
fauzan@bahana.co.id
Research Associate
ext 3613


Made Ayu Wijayati
made.ayu@bahana.co.id
Research Executive
ext 3607


Zefanya Halim
zefanya@bahana.co.id
CA Manager
ext 3612


Novianty Permata Sari
novianty@bahana.co.id
CA
ext 3618

Dealing Room: +62 21 527 0808

+62 31 535 2788 (Surabaya Branch)


Natalia Surjadiputra
natalia@bahana.co.id
Director of Sales &
Client Relationship Management
ext 2500


Kartika Sutandi, CFA
kartika.sutandi@bahana.co.id
Head of Equity Institutional Sales
ext 2590


Ashish Agrawal
ashish@bahana.co.id
Vice President
Institutional Equity Sales
ext 2550 / 2553


Yohanes Adhi Handoko
yohanes@bahana.co.id
Manager, Surabaya Branch
ext 7250


Alvin Gunawan
alvin.gunawan@bahana.co.id
Institutional Equity Sales
ext 2591


Bram Taarea
bram@bahana.co.id
Institutional Equity Sales
ext 2524


Suwardi Widjaja
Suwardi@bahana.co.id
Institutional Equity Sales
ext 2548


John M. Dasaad
dasaad@bahana.co.id
Institutional Equity Sales
ext 2549


Naarah Joesoef
nara.joesoef@bahana.co.id
Institutional Equity Sales
ext 2592


Hanna Marionda
hanna@bahana.co.id
Sales Trader
ext 2525


Adriana Kosasih
adri@bahana.co.id
Sales Executive
ext 2541

Head Office
Graha Niaga, 19th Floor
Jl. Jend. Sudirman Kav. 58
Jakarta 12190
Indonesia
Tel. 62 21 250 5081
Fax. 62 21 522 6049

BAHANA
PT Bahana Securities

Surabaya Branch
Wisma BII, Ground Floor
Jl. Pemuda 60-70
Surabaya 60271
Indonesia
Tel. 62 31 535 2788
Fax. 62 31 546 1157

Important Disclosures and Disclaimer

This publication is prepared by PT.Bahana Securities and reviewed by Daiwa Securities Group Inc. and/or its affiliates, and distributed outside Indonesia by Daiwa Securities Group Inc. and/or its affiliates, except to the extent expressly provided herein. Certain copies of this publication may be distributed inside and outside of Indonesia by PT. Bahana Securities in accordance with relevant laws and regulations. This publication and the contents hereof are intended for information purposes only, and may be subject to change without further notice. Any use, disclosure, distribution, dissemination, copying, printing or reliance on this publication for any other purpose without our prior consent or approval is strictly prohibited. Any review does not constitute a full verification of the publication and merely provides a minimum check. Neither Daiwa Securities Group Inc. nor any of its respective parent, holding, subsidiaries or affiliates, nor any of its respective directors, officers, servants and employees, represent nor warrant the accuracy or completeness of the information contained herein or as to the existence of other facts which might be significant, and will not accept any responsibility or liability whatsoever for any use of or reliance upon this publication or any of the contents hereof. Neither this publication, nor any content hereof, constitute, or are to be construed as, an offer or solicitation of an offer to buy or sell any of the securities or investments mentioned herein in any country or jurisdiction nor, unless expressly provided, any recommendation or investment opinion or advice. Any view, recommendation, opinion or advice expressed in this publication constitutes the views of the analyst(s) named herein and does not necessarily reflect those of Daiwa Securities Group Inc. and/or its affiliates nor any of its respective directors, officers, servants and employees except where the publication states otherwise. This research report is not to be relied upon by any person in making any investment decision or otherwise advising with respect to, or dealing in, the securities mentioned, as it does not take into account the specific investment objectives, financial situation and particular needs of any person.

Neither Daiwa Securities Group Inc. nor any of its affiliates is licensed to undertake any business within the Republic of Indonesia. Any display of any trade name or logo of the Daiwa Securities Group Inc. on this publication shall not be deemed to be an undertaking of any business within the Republic of Indonesia.

Daiwa Securities Group Inc., its subsidiaries or affiliates, or its or their respective directors, officers and employees from time to time may have trades as principals, or have positions in, or have other interests in the securities of the company under research including market making activities, derivatives in respect of such securities or may have also performed investment banking and other services for the issuer of such securities. The following are additional disclosures.

Ownership of Securities

For "Ownership of Securities" information, please visit BlueMatrix disclosure link at *https://daiwa3.bluematrix.com/sellside/Disclosures.action*.

Investment Banking Relationship

For "Investment Banking Relationship", please visit BlueMatrix disclosure link at *https://daiwa3.bluematrix.com/sellside/Disclosures.action*.

Japan

Daiwa Securities Co. Ltd. and Daiwa Securities Group Inc.

Daiwa Securities Co. Ltd. is a subsidiary of Daiwa Securities Group Inc.

Investment Banking Relationship

Within the preceding 12 months, The subsidiaries and/or affiliates of Daiwa Securities Group Inc. * has lead-managed public offerings and/or secondary offerings (excluding straight bonds) of the securities of the following companies: China Reinsurance Group Corporation (1508 HK).

*Subsidiaries of Daiwa Securities Group Inc. for the purposes of this section shall mean any one or more of:

- Daiwa Capital Markets Hong Kong Limited (大和資本市場香港有限公司)
- Daiwa Capital Markets Singapore Limited
- Daiwa Capital Markets Australia Limited
- Daiwa Capital Markets India Private Limited
- Daiwa-Cathay Capital Markets Co., Ltd.
- Daiwa Securities Capital Markets Korea Co., Ltd

Disclosure of Interest of Bahana Securities

Investment Banking Relationship

Within the preceding 12 months, Bahana Securities has lead-managed public offerings and/or secondary offerings (excluding straight bonds) of the securities of the following companies: Aneka Tambang Persero Tbk PT (ANTM IJ); PT Telekomunikasi Indonesia (Persero) Tbk (TLKM IJ); PT Waskita Beton Precast Tbk (WSBP IJ).

Hong Kong

This research is distributed in Hong Kong by Daiwa Capital Markets Hong Kong Limited (大和資本市場香港有限公司) ("DHK") which is regulated by the Hong Kong Securities and Futures Commission. Recipients of this research in Hong Kong may contact DHK in respect of any matter arising from or in connection with this research.

Relevant Relationship (DHK)

DHK may from time to time have an individual employed by or associated with it serves as an officer of any of the companies under its research coverage.

Singapore

This research is distributed in Singapore by Daiwa Capital Markets Singapore Limited and it may only be distributed in Singapore to accredited investors, expert investors and institutional investors as defined in the Financial Advisers Regulations and the Securities and Futures Act (Chapter 289), as amended from time to time. By virtue of distribution to these category of investors, Daiwa Capital Markets Singapore Limited and its representatives are not required to comply with Section 36 of the Financial Advisers Act (Chapter 110) (Section 36 relates to disclosure of Daiwa Capital Markets Singapore Limited's interest and/or its representative's interest in securities). Recipients of this research in Singapore may contact Daiwa Capital Markets Singapore Limited in respect of any matter arising from or in connection with the research.

Australia

This research is distributed in Australia by Daiwa Capital Markets Australia Limited and it may only be distributed in Australia to wholesale investors within the meaning of the Corporations Act. Recipients of this research in Australia may contact Daiwa Capital Markets Stockbroking Limited in respect of any matter arising from or in connection with the research.

India

This research is distributed in India to Institutional Clients only by Daiwa Capital Markets India Private Limited (Daiwa India) which is an intermediary registered with Securities & Exchange Board of India as a Stock Broker, Merchant Bank and Research Analyst. Daiwa India, its Research Analyst and their family members and its associates do not have any financial interest save as disclosed or other undisclosed material conflict of interest in the securities or derivatives of any companies under coverage. Daiwa India and its associates, may have received compensation for any products other than Investment Banking (as disclosed)or brokerage services from the subject company in this report or from any third party during the past 12 months. Daiwa India and its associates may have debt holdings in the subject company. For information on ownership of equity, please visit BlueMatrix disclosure Link at *https://daiwa3.bluematrix.com/sellside/Disclosures.action*.

There is no material disciplinary action against Daiwa India by any regulatory authority impacting equity research analysis activities as of the date of this report.

Associates of Daiwa India, registered with Indian regulators, include Daiwa Capital Markets Singapore Limited and Daiwa Portfolio Advisory (India) Private Limited.

Taiwan

This research is distributed in Taiwan by Daiwa-Cathay Capital Markets Co., Ltd and it may only be distributed in Taiwan to institutional investors or specific investors who have signed recommendation contracts with Daiwa-Cathay Capital Markets Co., Ltd in accordance with the Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers. Recipients of this research in Taiwan may contact Daiwa-Cathay Capital Markets Co., Ltd in respect of any matter arising from or in connection with the research.

Philippines

This research is distributed in the Philippines by DBP-Daiwa Capital Markets Philippines, Inc. which is regulated by the Philippines Securities and Exchange Commission and the Philippines Stock Exchange, Inc. Recipients of this research in the Philippines may contact DBP-Daiwa Capital Markets Philippines, Inc. in respect of any matter arising from or in connection with the research. DBP-Daiwa Capital Markets Philippines, Inc. recommends that investors independently assess, with a professional advisor, the specific financial risks as well as the legal, regulatory, tax, accounting, and other consequences of a proposed transaction. DBP-Daiwa Capital Markets Philippines, Inc. may have positions or may be materially interested in the securities in any of the markets mentioned in the publication or may have performed other services for the issuers of such securities.

For relevant securities and trading rules please visit SEC and PSE link at *http://www.sec.gov.ph/irr/AmendedIRRfinalversion.pdf and http://www.pse.com.ph/* respectively.

United Kingdom

This research report is produced by Daiwa Securities Co. Ltd. and/or its affiliates and is distributed in the European Union, Iceland, Liechtenstein, Norway and Switzerland. Daiwa Capital Markets Europe Limited is authorised and regulated by The Financial Conduct Authority ("FCA") and is a member of the London Stock Exchange and Eurex. This publication is intended for investors who are not Retail Clients in the United Kingdom within the meaning of the Rules of the FCA and should not therefore be distributed to such Retail Clients in the United Kingdom. Should you enter into investment business with Daiwa Capital Markets Europe's affiliates outside the United Kingdom, we are obliged to advise that the protection afforded by the United Kingdom regulatory system may not apply; in particular, the benefits of the Financial Services Compensation Scheme may not be available.

Daiwa Capital Markets Europe Limited has in place organisational arrangements for the prevention and avoidance of conflicts of interest. Our conflict management policy is available at *http://www.uk.daiwacm.com/about-us/corporate-governance-regulatory*.

Germany

This document is distributed in Germany by Daiwa Capital Markets Europe Limited, Niederlassung Frankfurt which is regulated by BaFin (Bundesanstalt fuer Finanzdienstleistungsaufsicht) for the conduct of business in Germany.

Bahrain

This research material is distributed by Daiwa Capital Markets Europe Limited, Bahrain Branch, regulated by The Central Bank of Bahrain and holds Investment Business Firm – Category 2 license and having its official place of business at the Bahrain World Trade Centre, South Tower, 7th floor, P.O. Box 30069, Manama, Kingdom of Bahrain. Tel No. +973 17534452 Fax No. +973 535113

This material is provided as a reference for making investment decisions and is not intended to be a solicitation for investment. Investment decisions should be made at your own discretion and risk. Accordingly, no representation or warranty, express or implied, is made as to and no reliance should be placed on the fairness, accuracy, completeness or correctness of the information and opinions contained in this document, Content herein is based on information available at the time the research material was prepared and may be amended or otherwise changed in the future without notice. All information is intended for the private use of the person to whom it is provided without any liability whatsoever on the part of Daiwa Capital Markets Europe Limited, Bahrain Branch, any associated company or the employees thereof. If you are in doubt about the suitability of the product or the research material itself, please consult your own financial adviser. Daiwa Capital Markets Europe Limited, Bahrain Branch retains all rights related to the content of this material, which may not be redistributed or otherwise transmitted without prior consent.

United States

This report is distributed in the U.S. by Daiwa Capital Markets America Inc. (DCMA). It may not be accurate or complete and should not be relied upon as such. It reflects the preparer's views at the time of its preparation, but may not reflect events occurring after its preparation; nor does it reflect PT.Bahana Securities' or DCMA's views at any time. Neither PT.Bahana Securities, DCMA nor the preparer has any obligation to update this report or to continue to prepare research on this subject. This report is not an offer to sell or the solicitation of any offer to buy securities. Unless this report says otherwise, any recommendation it makes is risky and appropriate only for sophisticated speculative investors able to incur significant losses. Readers should consult their financial advisors to determine whether any such recommendation is consistent with their own investment objectives, financial situation and needs. This report does not recommend to U.S. recipients the use of any of PT.Bahana Securities' or DCMA's non-U.S. affiliates to effect trades in any security and is not supplied with any understanding that U.S. recipients of this report will direct commission business to such non-U.S. entities. Unless applicable law permits otherwise, non-U.S. customers wishing to effect a transaction in any securities referenced in this material should contact a Daiwa entity in their local jurisdiction. Most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as a process for doing so. As a result, the securities discussed in this report may not be eligible for sales in some jurisdictions. Customers wishing to obtain further information about this report should contact DCMA: Daiwa Capital Markets America Inc., Financial Square, 32 Old Slip, New York, New York 10005 (Tel no. 212-612-7000).

Ownership of Securities

For "Ownership of Securities" information please visit BlueMatrix disclosure Link at https://daiwa3.bluematrix.com/sellside/Disclosures.action .

Investment Banking Relationships

For "Investment Banking Relationships" please visit BlueMatrix disclosure link at *https://daiwa3.bluematrix.com/sellside/Disclosures.action*.

DCMA Market Making

For "DCMA Market Making" please visit BlueMatrix disclosure link at *https://daiwa3.bluematrix.com/sellside/Disclosures.action*.

Research Analyst Conflicts

For updates on "Research Analyst Conflicts" please visit BlueMatrix disclosure link at *https://daiwa3.bluematrix.com/sellside/Disclosures.action*. The principal research analysts who prepared this report have no financial interest in securities of the issuers covered in the report, are not (nor are any members of their household) an officer, director or advisory board member of the issuer(s) covered in the report, and are not aware of any material relevant conflict of interest involving the analyst or DCMA, and did not receive any compensation from the issuer during the past 12 months except as noted: no exceptions.

Research Analyst Certification

For updates on "Research Analyst Certification" and "Rating System" please visit BlueMatrix disclosure link at *https://daiwa3.bluematrix.com/sellside/Disclosures.action*. The views about any and all of the subject securities and issuers expressed in this Research Report accurately reflect the personal views of the research analyst(s) primarily responsible for this report (or the views of the firm producing the report if no individual analysts[s] is named on the report); and no part of the compensation of such analyst(s) (or no part of the compensation of the firm if no individual analyst[s)] is named on the report) was, is, or will be directly or indirectly related to the specific recommendations or views contained in this Research Report.

For stocks and sectors in Indonesia covered by Bahana Securities, the following rating system is in effect:

Stock ratings are based on absolute upside or downside, which is the difference between the target price and the current market price. Unless otherwise specified, these ratings are set with a 12-month horizon. It is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on the market price and the formal rating.
"Buy": the price of the security is expected to increase by 10% or more.
"Hold": the price of the security is expected to range from an increase of less than 10% to a decline of less than 5%.
"Reduce": the price of the security is expected to decline by 5% or more.

Sector ratings are based on fundamentals for the sector as a whole. Hence, a sector may be rated “Overweight” even though its constituent stocks are all rated “Reduce”; and a sector may be rated “Underweight” even though its constituent stocks are all rated “Buy”.
“Overweight”: positive fundamentals for the sector.
“Neutral”: neither positive nor negative fundamentals for the sector.
“Underweight”: negative fundamentals for the sector.

Ownership of Securities
For “Ownership of Securities” information, please visit BlueMatrix disclosure Link at https://daiwa3.bluematrix.com/sellside/Disclosures.action .

Investment Banking Relationships
For “Investment Banking Relationship”, please visit BlueMatrix disclosure Link at https://daiwa3.bluematrix.com/sellside/Disclosures.action .

Relevant Relationships (Bahana Securities)
Bahana Securities may from time to time have an individual employed by or associated with it serves as an officer of any of the companies under its research coverage.

Bahana Securities market making
Bahana Securities may from time to time make a market in securities covered by this research.

Standard & Poor’s
The Name of the Credit Rating Agencies group, etc.
The name of the Credit Rating Agencies group: S&P Global Ratings ("Standard & Poor’s ")
The name and registration number of the Registered Credit Rating Agency in the group:
Standard & Poor’s Ratings Japan K.K. (FSA commissioner (Rating) No.5)

How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings
The information is posted under “Unregistered Rating Information” (http://www.standardandpoors.co.jp/unregistered) in the “Library and Regulations” section on the website of Standard & Poor’s ratings Japan K.K. (http://www.standardandpoors.co.jp)

Assumptions, Significance and Limitations of Credit Ratings
Credit ratings assigned by Standard & Poor's are statements of opinion on the future credit quality of specific issuers or issues as of the date they are expressed and they are not indexes which show the probability of the occurrence of the failure to pay by the issuer or a specific debt and do not guarantee creditworthiness. Credit ratings are not a recommendation to purchase, sell or hold any securities, or a statement of market liquidity or prices in the secondary market of any issues.
Credit ratings may change depending on various factors, including issuers' performance, changes in external environment, performance of underlying assets, creditworthiness of counterparties and others. Standard & Poor's conducts rating analysis based on information it believes to be provided by the reliable source and assigns credit ratings only when it believes there is enough information in terms of quality and quantity to make a conclusion. However, Standard & Poor's does not perform an audit, due diligence or independent verification of any information it receives from the issuer or a third party, or guarantee its accuracy, completeness or timeliness of the results by using the information. Moreover, it needs to be noted that it may incur a potential risk due to the limitation of the historical data that are available for use depending on the rating.

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of May 13th, 2016, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of Standard & Poor’s Ratings Japan K.K. (http://www.standardandpoors.co.jp)

Additional information may be available upon request.

Japan - additional notification items pursuant to Article 37 of the Financial Instruments and Exchange Law

(This Notification is only applicable where report is distributed by Daiwa Securities Co. Ltd.)

If you decide to enter into a business arrangement with us based on the information described in materials presented along with this document, we ask you to pay close attention to the following items.

- In addition to the purchase price of a financial instrument, we will collect a trading commission* for each transaction as agreed beforehand with you. Since commissions may be included in the purchase price or may not be charged for certain transactions, we recommend that you confirm the commission for each transaction.
- In some cases, we may also charge a maximum of ¥ 2 million (including tax) per year as a standing proxy fee for our deposit of your securities, if you are a non-resident of Japan.
- For derivative and margin transactions etc., we may require collateral or margin requirements in accordance with an agreement made beforehand with you. Ordinarily in such cases, the amount of the transaction will be in excess of the required collateral or margin requirements.
- There is a risk that you will incur losses on your transactions due to changes in the market price of financial instruments based on fluctuations in interest rates, exchange rates, stock prices, real estate prices, commodity prices, and others. In addition, depending on the content of the transaction, the loss could exceed the amount of the collateral or margin requirements.
- There may be a difference between bid price etc. and ask price etc. of OTC derivatives handled by us.
- Before engaging in any trading, please thoroughly confirm accounting and tax treatments regarding your trading in financial instruments with such experts as certified public accountants.

*The amount of the trading commission cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

When making an actual transaction, please be sure to carefully read the materials presented to you prior to the execution of agreement, and to take responsibility for your own decisions regarding the signing of the agreement with us.

Corporate Name:	Daiwa Securities Co. Ltd.
	Financial instruments firm: chief of Kanto Local Finance Bureau (Kin-sho) No.108
Memberships:	Japan Securities Dealers Association, Financial Futures Association of Japan
	Japan Securities Investment Advisers Association
	Type II Financial Instruments Firms Association