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HORIZON RESEARCH

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World Tea Industry

Black Tea

Green Tea

White Tea

Oolong Tea

Table 1: Focus list – Global tea majors [1]

Company Name	Ticker	Location	Actuals[1]	EV (USD mn)	Revenue (USD mn)	*Revenue CAGR (5 Yrs)*	EBITDA (USD mn)	*EBITDA CAGR (5 Yrs)*	FCF (USD mn)	EV/EBITDA (x)	FCF/EBITDA (%)	FCF/EV (%)	Debt/Equity (%)	Net Debt/MK. Cap (%)
Ito En	2593	Japan	FY12	2,575	4,628	*3.3*	388	*3.3*	198	6.6	51.1	7.7	30.2	6.6
Tata Global Beverages	500800	India	FY12	2,030	1,303	*10.3*	128	*(0.6)*	31	15.8	24.5	1.5	37.0	0.9
Tenfu Holdings Co.	6868	China	FY11	697	278	-	77	-	18	9.1	23.5	2.6	51.3	(16.4)
McLeod Russel India	532654	India	FY12	662	284	*18.9*	78	*36.1*	23	8.5	30.0	3.5	28.0	7.3
Taiwan Tea Corporation	2913	Taiwan	FY11	407	52	*5.2*	(10)	*NM*	(40)	NM	NM	(9.9)	32.4	22.5
Farmer Brothers Co.	FARM	US	FY12	196	495	*16.6*	13	*19.2*	1	15.0	4.6	0.3	32.6	11.4
Ten Ren Tea Co.	1233	Taiwan	FY11	133	68	*2.7*	11	*5.8*	8	12.4	70.2	5.7	1.7	(5.8)
Besunyen Holdings Company	926	China	FY11	36	133	-	3	-	(82)	11.0	NM	(230.1)	29.7	(82.7)
Ceylon Tea Services PLC	CTEA	Sri Lanka	FY12	79	46	*13.5*	9	*4.1*	7	8.6	80.3	9.4	0.2	(21.7)
Dhunseri Petrochem and Tea	523736	India	FY12	161	390	*97.5*	26	*70.2*	(53)	6.1	(198.9)	(32.6)	98.0	107.4

Source: Horizon Research, Capital iq

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[1] Figures are actual based on last reported year

INTRODUCTION

In this report, we study the investment dynamics of the global tea industry. There are over 53 publicly traded tea companies worldwide, predominantly listed in the major tea producing countries India, China, Japan, Sri Lanka, Kenya and Taiwan. The total tea industry market capitalisation is ~USD 7 billion. Between 2000-10 tea consumption has grown at a CAGR of 3.6% from 2.9 million MT in 2000 to 4.0 million MT in 2010 compared to coffee (the closest substitute) consumption CAGR ~1.8% from 5.8 million MT in 2000 to 6.9 million MT in 2010 (Table 6). We recommend long term investors invest based on our focus list (Table 1). Our focus list consists of global tea majors that have strong balance sheets, with low leverage (debt/equity) ratio of 0.3x and high free cash flow to EBITDA of over 50%. These companies represent more than 85% of the total tea industry market capitalisation, revenue and EBITDA.

Tea is an aromatic beverage usually prepared by pouring boiling hot water over dried leaves of the 'Camellia Sinensis' plant.[2] Tea is one of the most widely consumed beverages in the world. Tea consumption is increasing worldwide due to its perceived health benefits as it contains a high level of polyphenols, a type of antioxidant, which protects cells from the DNA damage that causes cancer and also reduces the risk of developing coronary artery disease.

Approximately 4.2 million metric tonnes (MT) of tea is produced annually (2011). India and China together hold a dominant position in the global tea industry. China is the largest tea producer in the world with ~37% share, India has a ~23% share and Kenya & Sri Lanka together have a 17% share in global tea production (Figure 1). These top 4 producers together control more than 75% of global tea production.

Figure 1: Worldwide tea production

Source: Ratetea[3]

The type of tea produced by China (green tea) and India (black tea) depends on their local consumer preferences. Black tea is the largest produced tea variety globally with ~75% share in the global tea production. Green tea has a 20% share in global tea production with the remaining contributed by oolong and white tea.

A majority of the tea produced in India and China is consumed domestically. Together, India and China have a 45% share in the global consumption of tea (Table 2). Black tea is the most widely consumed tea variety with a 78% share. India is the largest black tea consumer with a 30% share. Green Tea is widely consumed in China and Japan.

[2] The word 'tea' is commonly used to refer to both processed tealeaves & the beverage that results on brewing of processed tealeaves. In this report all production and consumption related data refers to processed tealeaves (that are yet to be brewed)
[3] http://ratetea.com/region.php

Table 2: Tea industry dynamics (2011)

	Production				Exports				Consumption				Imports		
Countries	Quantity (mn MT)	Share (%)	CAGR (%)	Countries	Quantity (mn MT)	Share (%)	CAGR (%)	Countries	Quantity (mn MT)	Share (%)	CAGR (%)	Countries	Quantity (mn MT)	Share (%)	CAGR (%)
China	1.6	37	*7.2*	Kenya	0.4	25	*0.5*	China	1.2	26	*9.3*	Russia	0.2	10	*1.2*
India	1.0	23	*(0.4)*	China	0.3	19	*5.8*	India	1.0	21	*1.8*	UK	0.2	9	*(1.9)*
Kenya	0.4	9	*6.5*	Sri Lanka	0.3	18	*1.3*	Russia	0.2	4	*1.0*	US	0.1	7	*1.2*
Sri Lanka	0.3	8	*1.6*	India	0.2	11	*2.7*	Turkey	0.2	4	*4.9*	Pakistan	0.1	7	*0.6*
Vietnam	0.2	4	*4.9*	Vietnam	0.1	8	*11.5*	Pakistan	0.1	3	*0.7*	UAE	0.1	5	*(1.7)*
World	**4.2**		***3.4***		**1.7**		***2.6***		**4.8**		***3.9***		**1.8**		***2.9***

Source: Horizon Research, FAO and Tea board of India

The major tea exporting nations Kenya, China, Sri Lanka and India together contributed ~73% of global tea exports in 2011. Kenya and Sri Lanka also play a prominent role in the tea industry as both these countries export more than 90% of their production. Russia, UK and the US are major importing nations with a 10%, 9% and 7% share respectively of the total global import of tea. (Table 2)

We believe that there will be an increasing mismatch between the production and consumption for tea, which will benefit tea plantation companies such as McLeod Russel (BSE: 532654), Warren Tea (BSE: 508494), Jay Shree Tea (BSE: 509715) and Goodricke (BSE: 500166). Tea consumption has grown at 3.6% CAGR during 2000-10 (from 2.9 million MT to 4.0 million MT) primarily due to tea consumption in developing nations increasing from 2.1 million MT in 2000 to 3.2 million MT in 2010 (CAGR of 4.4%) (Table 6). Consumers of tea are reluctant to switch to other beverages due to its mildly addictive properties and taste. As a result, tea has been considered as an essential item and consumption is relatively inelastic to price.[4]

The growth in production of tea will decline due to limited availability of land in tea cultivation area. During 2006-10 the area under tea cultivation increased by 3.4% from 2.74 million hectares to 3.13 million hectares (Table 3).

Table 3: Area under tea cultivation

Countries	Area under cultivation (million hectares) 2006	2010	CAGR %	% of the total tea area Avg. 2006-10	Consumption pattern
China	1.11	1.42	6.2	43.3	Mostly Domestic
India	0.56	0.58	1.2	19.3	In both domestic and export
Sri Lanka	0.21	0.22	0.6	7.4	Mostly Exported
Kenya	0.15	0.17	4.0	5.3	Mostly Exported
Top 5 countries	2.13	2.50	4.1	79.0	
Overall	**2.74**	**3.13**	**3.4**		

Source: Horizon Research, FAO

The tea production and consumption mismatch has already resulted in current Indian tea prices increasing by 22% since January 2012, from INR 95.7 per Kg in January 2012 to INR 117.5 per Kg in September 2012 compared with a 7% increase during the same period last year (INR 97.3 per Kg in January 2011 to INR 103.9 per Kg in September 2011).

[4] http://www.fao.org/news/story/en/item/124221/icode/

TEA INDUSTRY DYNAMICS

History

Tea has 5,000-year-old history and is believed to be first brewed in 2737 B.C by the Chinese Emperor Shen-Nung, when some tealeaves accidentally blew into a pot of boiling water.

Tea reached the west first when England imported tea from China in 1657. In the early 19th century, due to high British demand for Chinese goods such as tea, silk and porcelain, a trade imbalance emerged in Britain that resulted in a shortage of silver. With a view to prevent depletion of their silver reserves and correct the trade imbalance, British traders introduced opium in China. Chinese opposition to the import of opium resulted in the opium wars, which eventually lead to the ceding of Hong Kong to Britain amongst other humiliating concessions by China.

In order to reduce their dependency on import from China western nations experimented with planting tea in other countries. In India, cultivation of tea first started in 1780 with seeds imported from China but initial efforts were unsuccessful. It was only in the 1830's that tea plantations in the Upper Brahmaputra valley (in Assam) started yielding results. In May 1838, the first Indian tea consignment from Assam was sent to England for public sale. By the early 20th century cultivation of tea had spread to Java and Sumatra in Indonesia, Kenya and other parts of Africa.

Planting tea

The tea bush requires a hot and moist climate with at least 50 inches of rainfall in a year and can only be grown in certain regions in the world (Figure 1). It is better to cultivate tea bushes at elevations of up to 1,500 m (4,900 ft.) above sea level because at this height bushes grow slowly and deliver better flavour. A new bush is ready for harvesting in around 3 years.

During harvesting only tealeaves from the top 1-2 inches of the tea bush are picked. Productivity is generally dependent on the age of the tea bush, temperature and rainfall. During the growing season (mainly June – October, in India), a bush normally grows a new leaf every 7-15 days. The tea bush has a productive life of ~ 20-25 years after which the yield declines.

Types of tea

The various types of tea are distinguished by the level of processing they undergo, which affects both flavour and nutritional content (Table 4). Tea processing is the method whereby tealeaves are transformed into dried leaves for brewing. Two main processes of making tea are 'wilting' and 'oxidization/fermentation'.

The wilting process is used to eliminate excess water from tealeaves and is performed by placing tealeaves either under the sun or in a cool windy room. In the oxidation process, tealeaves are placed in a climate-controlled area where they gradually become darker. The tea producer adjusts the oxidation process depending upon the quality of tea desired.

Table 4: Types of tea

Types	Process	Caffeine content	Health benefits
Black	Fully wilted and fully oxidized	~20% of the caffeine found in a cup of coffee	Maintain cholesterol levels, cardiovascular function and a healthy circulatory system
Green	Wilted but not oxidized	Only 5-10% of the caffeine found in a cup of coffee	Maintaining cholesterol levels, good skin and teeth. Also maintain a healthy blood sugar level
Oolong	Wilted and only partially oxidized	15% of the caffeine found in a cup of coffee	
White	Not wilted and not oxidized	Very little caffeine	Contain healthy antioxidants and are the best for skin and complexion

Source: Horizon Research, Health [5]

Black tea is further processed by either of two methods known as (1) Crush, Tear and Curl (CTC) (~40% of the global black tea production) or (2) 'Orthodox' (~60% of the global black tea production).

CTC tea is machine-processed; and the process eliminates most of the labour required to produce tea. Tealeaves used for making the CTC tea can be hand or machine plucked. Then after wilting, the tealeaves are passed through a number of cylindrical rollers, which crush, tear and roll tealeaves into tiny and irregular pieces[6]. Tealeaves are processed under the CTC method without discriminating over the end product quality and used primarily in mass-market tea bags.

The Orthodox method refers to hand-processed tea. The orthodox method is used for plucking comparatively higher quality tealeaves & buds. Orthodox tea is known for its flavour and is also used for producing blended tea. Orthodox tea is more expensive than CTC tea due to higher labour input and cost. 'Orthodox' processed teas are produced in China, Sri Lanka, Darjeeling (India) and Assam (India) whereas Kenya and Southern part of India largely produce CTC tea.

Apart from the four major tea varieties mentioned above (Table 4), blended tea is also increasing the popularity worldwide. Blended tea generally contains two or more types of tea and can also be made by mixing tealeaves with flowers (Jasmine, Rose, Lotus), herbs (Mint, Pandan[7]), spices (Ginger, Cardamom, Black pepper, Clove), and/or other substances, which adds to the aroma and flavor.

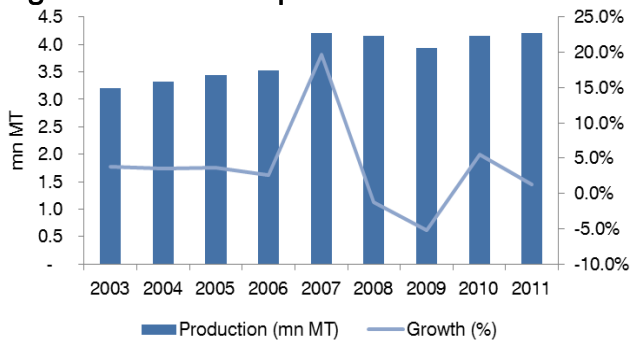
[5] http://www.health.com/health/article/0,,20534999,00.html
[6] http://www.arborteas.com/pages/tea-manufacture.html
[7] Pandan leaves are used widely in Southeast Asian for flavoring while cooking

GLOBAL TEA

Trends in production and export

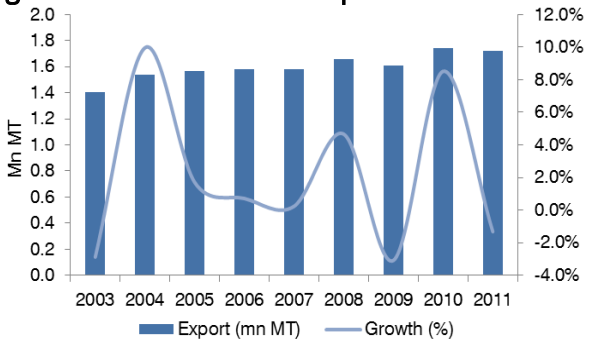
Global tea production grew at a CAGR of 3.5% from 3.2 million MT in 2003 to 4.2 million MT in 2011 (Figure 2). During the same period area under cultivation increased by 3.3% to 3.1 million hectares from 2.5 million hectares in 2003 and yield improved by 1.4% to 1.4 MT per hectare.

Figure 2: World tea production



Source: Tea board of India

Figure 3: World tea export



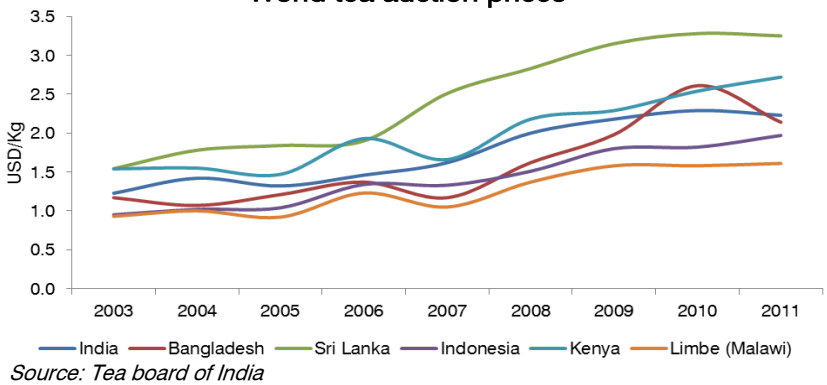
Source: Tea Board of India

Global tea exports grew at a CAGR of 2.6% from 1.4 million MT in 2003 to 1.7 million MT in 2011 (Figure 3). The tea industry in Sri Lanka and Kenya is largely dependent on exports with more than 90% of the total tea produced in their respective countries being exported.

Tea prices

Marginal growth in production and increasing consumption for tea globally have led to an increase in average tea prices by 8.3% from USD 1.2 per kg in 2003 to USD 2.3 per Kg in 2011 (Figure 4). The highest price increases have been observed for Sri Lankan (9.8%) and Indonesian tea (9.5%).

Figure 4: World tea auction prices



Source: Tea board of India

Cost of production

Amongst the major tea producing countries, India has a comparatively higher cost of production as tea companies have had to compulsory provide housing, medical facilities, rations and

education for their labour.[8] The cost of tea production in Sri Lanka is higher because they produce more of the orthodox black tea variety.

Table 5: Cost, auction price and margins in major countries

Country	Cost of production (USD/kg)	Auction prices (USD/kg)	Average margins
India	1.71#	2.29	33%
Kenya	1.33 ^	1.58	19%
Sri Lanka	2.44 ^	3.28	34%

Source: Tea board of India
 # Average of McLeod Russell, Goodricke and Warren Tea, ^2010 cost

Contrasting consumption patterns

Coffee is considered to be a perfect substitute for tea because both contain caffeine.[9] Caffeine content in coffee is higher and is around 80-185 mg per an 8 ounce cup compared with 15 -70 mg per cup in tea, depending on the type of tea.[10]

The developed countries consume more than 70% of the overall coffee production. In contrast, developing countries consume more than 80% of the overall tea production.

Table 6: Tea and Coffee – A comparison

	Coffee							Tea					
	Volume (Mn MT)			Kg per person				Volume (Mn MT)			Kg per person		
Countries	2000	2010	CAGR	2000	2010	CAGR	Countries	2000	2010	CAGR	2000	2010	CAGR
Developed	**4.1**	**5.0**	***2.0%***				**Developed**	**0.9**	**0.9**	***-0.8%***			
United States	1.3	1.2	*-1.2%*	4.6	3.7	*-2.1%*	United States	0.1	0.1	*1.6%*	0.3	0.3	*0.6%*
Canada	0.2	0.2	*0.1%*	6.7	6.1	*-0.9%*	Russia	0.2	0.2	*-1.2%*	1.4	1.2	*-0.9%*
Germany	0.8	0.9	*0.5%*	10.2	10.7	*0.5%*	Japan	0.1	0.1	*-1.4%*	1.1	1.0	*-1.4%*
France	0.4	0.4	*0.7%*	6.5	6.5	*0.1%*	UK	0.1	0.1	*-1.2%*	2.3	1.9	*-1.8%*
Developing	**1.7**	**2.0**	***1.3%***				**Developing**	**2.1**	**3.2**	***4.4%***			
Brazil	1.2	1.4	*1.1%*	7.0	7.0	*0.0%*	China	0.5	1.1	*8.6%*	0.4	0.8	*8.0%*
India	0.3	0.4	*2.2%*	0.3	0.3	*0.7%*	India	0.7	0.8	*2.4%*	0.6	0.7	*0.9%*
Indonesia	0.1	0.1	*-0.9%*	0.6	0.5	*-2.1%*	Turkey	0.1	0.1	*-0.5%*	2.3	1.9	*-1.8%*
Colombia	0.1	0.1	*-0.4%*	2.4	2.0	*-1.9%*	Pakistan	0.1	0.1	*1.9%*	0.8	0.8	*0.0%*
Mexico	0.1	0.1	*-2.3%*	0.7	0.5	*-3.5%*	Iran	0.1	0.1	*-0.2%*	1.4	1.2	*-1.4%*
World	**5.8**	**6.9**	***1.8%***	**0.9**	**1.0**	***0.6%***	**World**	**2.9**	**4.0**	***3.6%***	**0.5**	**0.6**	***2.3%***

Source: Horizon Research, FAO, International Coffee Association, World Bank

Consumption (per kg per person) trends suggest tea consumption is growing at a faster rate than coffee due to growth in tea consumption in China and India. Tea consumption in developing nations increased by 4.4% CAGR from 2.1 million MT in 2000 to 3.2 million MT in 2010 compared to coffee which increased by 1.3% CAGR from 1.7 million MT in 2000 to 2.0 million MT in 2010 (Table 6).

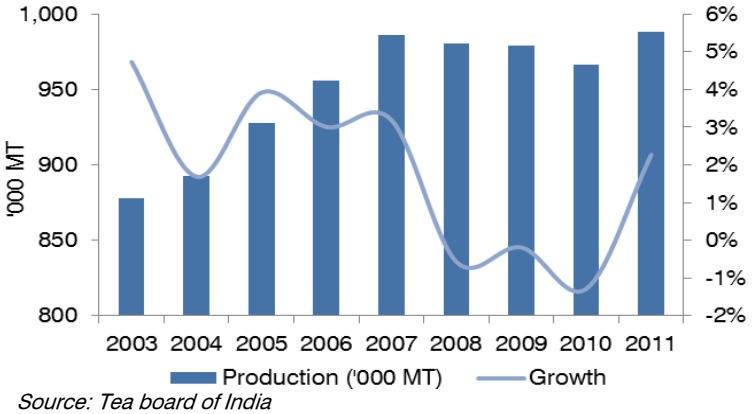
[8] http://www.teaboard.gov.in/pdf/policy/Plantations%20Labour%20Act_amended.pdf
[9] Caffeine is used to reduce the physical exhaustion and tiredness to restore the alertness when drowsiness occurs
[10] http://www.diffen.com/difference/Coffee_vs_Tea

INDIAN TEA

Production

Indian tea production reported a marginal increase of 1.5% from 878,129 MT in 2003 to 988,330 MT in 2011(Figure 5). Area under cultivation grew by 1.3% while yield declined by 0.5% during the period.

Figure 5: Indian tea production



Source: Tea board of India

The Indian tea industry is segmented into two geographical divisions i.e. North India and South India (Figure 6 & 7). In North India, Assam and Sikkim are the two prominent tea producing states and are known for their tea quality across the world. West Bengal (Darjeeling, Dooars and Terai) also has a significant share (23.6% of India's tea production). In South India, Tamilnadu (Nilgiri), Kerala and Karnataka, are the major tea producing areas. The tea industry provides employment to more than 1.2 million workers. Labour cost is the largest cost factor constituting ~55-65% of the total tea production cost.

Figure 6: India tea production – Map

Source: Amrc[11]

Table 7: Region-wise tea production

Region	MT	Share (%)
Assam	487,212	50.4
West Bengal	228,305	23.6
Tamil Nadu	166,876	17.3
Kerala	65,872	6.8
Karnataka	5,459	0.6
Other – North India	13,009	1.3

Source: Tea board of India

[11] http://www.amrc.org.hk/node/1001

Table 8: Major Indian tea varieties

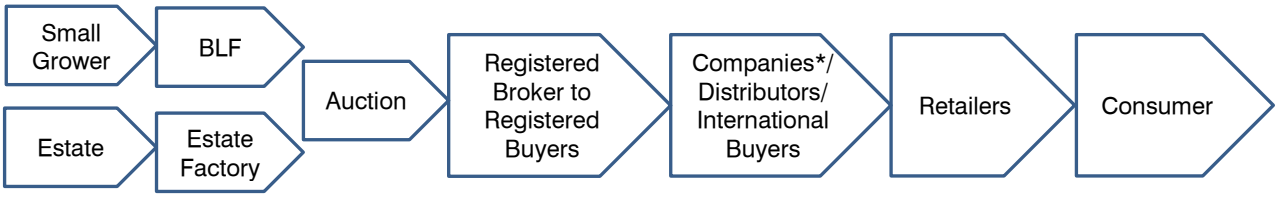
Variety	Specialty
Darjeeling tea	Tea grown in Darjeeling is known for its taste and unique flavour. The variety is also called the 'Champagne of Tea' as the flavour cannot be replicated anywhere in the world. The tea gardens in Darjeeling are situated on steep slopes and have intermitted cloud and sunshine that help give the tea a special flavour. Only orthodox tea is produced in Darjeeling and it constitutes ~1% of India's tea production.
Assam tea	Assam is the largest tea-growing region in the world and the tea estates are situated on both sides of the Brahmaputra river. The region constitutes ~50% of India's tea production. Both CTC and orthodox tea are produced in Assam.
Nilgiri tea	This variety is grown in the state of Tamilnadu and constitutes ~17% of India's tea production. The tea grown in the area is stronger than Darjeeling tea but milder than the Assam tea, which makes it perfect for iced tea. Both CTC and orthodox tea are produced in Nilgiri.

Source: Horizon Research, Pekoetipstea[12]

Procurement process

There are two major groups of tea producers in India: the small growers and the tea estates. Of the total area under tea cultivation ~28% is owned by the small growers (161,238 in number) and they produce ~26% of India's total output. The remaining ~72% of the area under tea cultivation is under the tea estates (1,686 gardens)[13]. Large tea estates normally have their own processing facilities and they are less dependent on the Bought Leaf Factories (BLF). BLFs normally do not have their own tea plantations but process tealeaves procured from small growers. They generally do not have efficient tea processing techniques. BLFs sell their produced tea to the wholesalers, country buyers and outside buyers via auction or direct sale (Figure 7).

Figure 7: Tea value chain



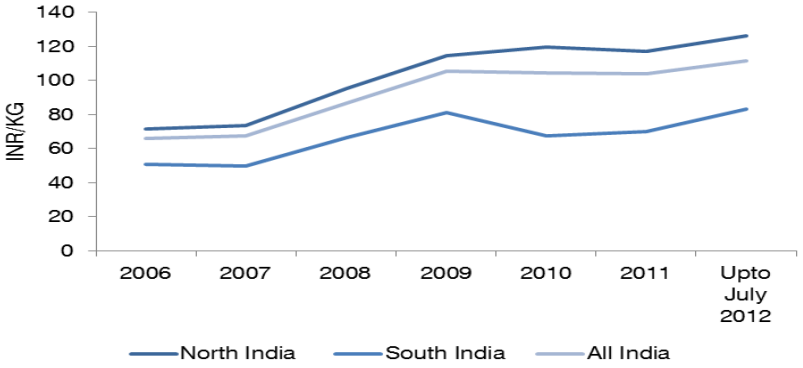
*Source: Horizon Research, ** for branding

Auction price

There are nine auction centers in India and more than 50% of India's tea production is sold through auction. The two major auction centers are at Kolkata and Guwahati. Auction prices at an all India level have reported an increase of 9.5% CAGR to INR 104 per kg in 2011 from INR 66 per kg in 2006. During the same period, North and South prices have increased by 10.3% and 6.7% CAGR, respectively. Tea from North India fetches a premium of ~50% (based on average prices from 2006 to 2011) over South Indian tea (Figure 8).

[12] http://www.pekoetipstea.com/english.html
[13] Source: FAO

Figure 8: Tea auction prices - India

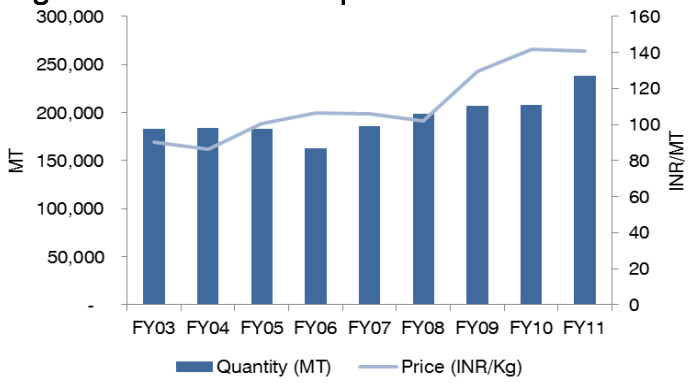


Source: Tea board of India

Exports

Indian exports (comprising ~20% of production) have grown at a CAGR of 9.3% from INR 17 billion in FY03 to INR 33 billion in FY11 (Figure 9). This was mainly supported by the export volume growth of 3.4% from 182,861 MT in FY03 to 238,336 MT in FY11 and price increase of 5.7% from INR 90 per Kg to INR 141 per Kg. Russia, UK, UAE, US and Iran together consume 48% of India's total exports (Table 9). Indian tea export industry is facing intense competition from Kenya (for CTC tea), Sri Lanka (for Orthodox tea), China (for green tea), Vietnam and Indonesia.

Figure 9: Indian tea exports



Source: APEDA

Table 9: Top importing countries

Region	MT	Share (%)
Russia	35,663	17.3
UK	25,526	12.4
UAE	23,815	11.5
US	14,231	6.9
Iran	13,892	6.7
Pakistan	10,277	5.0
Kazakhstan	8,447	4.1
Australia	6,713	3.2

Source: APEDA, based on last 5 years average

GLOBAL MAJOR TEA COMPANIES

ITO EN (TYO: 2593)

Founded in 1966, ITO EN is the world's largest tea company in terms of market capitalization (USD 2.2 billion). ITO EN is a Japanese multinational beverage company, specialized in tea production and distribution. It is the largest green tea distributor in Japan with the subsidiaries based in the US, China and Australia and purchases ~27% of the total tealeaves grown in Japan. Tea constitutes ~67.4% of the company's total revenues with the remaining coming from different types of fruit, vegetable and coffee beverages. In FY12, ITO EN had revenue of nearly USD 4.6 billion and generated free cash flow of USD 198 million (~4% as a percentage of revenue). It had gross, EBITDA margin and RoE of 49%, 7% and 8% respectively (average last 5 year). Based on FY12 numbers, the company trades at 6.6x EV/EBITDA and 18.9x P/E multiple.

Tata Global Beverages (BSE: 500800)

Tata Global Beverages is the largest tea company in India and the second largest tea company in the world terms of market capitalization (USD 1.8 billion). It was incorporated in 1962 as Tata Finlay, a joint venture between Tata Sons and James Finlay & Company, the UK-based tea plantation company. In 1983, Tata Tea was formed after James Finlay sold his shareholding to Tata. In order to focus on the branded tea business, reduce costs, improve productivity and quality, from 2005 onwards, the company initiated restructuring program of tea plantation business by spinning off their plantation assets. In FY11, the company has done only 1.9 million kg against 59.7 million kg in FY05 from plantation business, on account of reshuffling of planation business. Tea beverages contribute more than 72% of the company's revenue with the rest coming from coffee and other products (including 10% revenue from plantation business).The company had revenue of USD 1.3 billion in FY12 and has volume and value market share of ~19% and ~21%, respectively in India. The US & Canada, UK and rest of the world contribute to 27%, 22% and 21%, respectively of the company's revenues. Tata Global Beverages has gross, EBITDA margin and RoE of 51%, 12% and 19% respectively (average last 5 years). In FY12, Tata Global Beverages has generated free cash flow of USD 31 million which is ~2% of the revenue and RoE of 6%. Based on FY12 numbers, the company trades at 15.8x EV/EBITDA and 31.4x P/E multiple.

Tenfu (Cayman) Holdings Company (SEHK: 6868)

Tenfu (Cayman) Holdings Company Limited the largest tea company in China engages in the sale and marketing of tea products. The company has revenue of USD 278 million in FY11, gross margin, EBITDA margin and RoE of 61%, 27% and 23%, respectively (average last 5 years). In FY11, Tenfu has generated free cash flow of USD 18 million. Based on FY11 numbers, the company trades at 9.1x EV/EBITDA and 18.0x P/E multiple.

McLeod Russel India (BSE: 532654)

McLeod Russel (McLeod) is the largest tea plantation company in India and engages in the cultivation, processing and sale of tea. The company has been in existence for more than a century and exists in its current form after demergering from Eveready Industries in April 2004. McLeod along with its subsidiaries has 54 estates in India (48 in the Assam Valley and 6 tea estates in the Dooars region of West Bengal), 3 in Vietnam, 6 in Uganda and 1 in Rwanda. It accounts for ~8% and ~16% of overall tea produced in India and in Assam, respectively. McLeod Russel had revenues of USD 284 million in FY12, and EBITDA, PAT margin and RoE of 25%, 15% and 13%, respectively (average last 5 years). McLeod Russel sells its produce via auctions, direct

sells to major buyers and through exports (generating ~14% from export). Based on FY12 numbers, the company trades at 8.5x EV/EBITDA and 16.9x P/E multiple.

Ceylon Tea Services PLC (COSE: CTEA)

Ceylon Tea Services PLC produces and markets tea bags and packets under the brand name 'Dilmah'. Ceylon Tea Services is the largest tea company in Sri Lanka and their focus is the export market. It has a presence in over 80 countries worldwide with almost 99% of revenues generated from exports. The company was formed in 1981 and is the subsidiary of MJF Teas (P) Ltd (MJF was formed in 1950s). It had revenues of USD 46 million with EBITDA and RoE of 18% and 22%, respectively. Based on FY12 numbers, the company trades at 8.6x EV/EBITDA and 9.9x P/E multiple.

INDIAN SMALL CAP - TEA COMPANIES

Jay Shree Tea & Industries (BSE: 509715)

The company has 22 tea estates spread across India of which 10 gardens are in Assam, 4 in Dooars & Terai (West Bengal), 6 gardens in Darjeeling (West Bengal) and 2 in South India. The tea segment contributes ~65% of revenues with export contribution at ~20% of revenues. Jay Shree had revenues of USD 130 million (FY12) with an average 5 years EBITDA margin and RoE of 12% and 14% respectively. Based on FY12 numbers, the company trades at 12.2x EV/EBITDA and 31.7x P/E multiple.

Goodricke Group (BSE: 500166)

The company has 17 tea estates in India of which 12 estates are in Jalpaiguri (West Bengal), 3 in Darjeeling (West Bengal) and 2 in Darrang (Assam). It had revenues of USD 87 million (FY12) with an average 5 years EBITDA margin and RoE of 15% and 32% respectively. Based on FY12 numbers, the company trades at 5.1x EV/EBITDA and 19.2x P/E multiple.

Assam Company India (BSE: 500024)

The company has 19 gardens spread across Assam. Tea contributes 87% of the revenues. They had revenues of USD 53 million (FY12) with an average 5 years EBITDA margin and RoE of 21% and 4%, respectively. Based on FY12 numbers, the company trades at 20.3x EV/EBITDA and 14.1x P/E multiple.

Warren Tea (BSE: 508494)

The company had 14 estates situated in Assam. More than 95% of their revenue is generated from the domestic market. Warren Tea had revenues of USD 48 million (FY12) with an average 5 years EBITDA margin and RoE of 17% and 12% respectively. Based on FY12 numbers, the company trades at 6.7x EV/EBITDA and 18.9x P/E multiple.

OUR COMPOSITES

Globally there are approximately 827 companies engaged in the tea business of which 209 companies are publicly traded companies. Our composites (tea universe) consist of 53 public traded companies (as illustrated in the Appendix 1) which disclose segmental information on tea. The overall tea industry market capitalisation and EV was approximately USD 7 billion and USD 8 billion, respectively. EV/EBITDA ranges between 0.5x-28.9x with an average and medium EV/EBITDA of 9.4x and 8.2x respectively. Overall tea industry's last 5 year average gross margin, EBITDA margin and net margin was 36%, 14% and 8%, respectively. We recommend that long term investor should concentrate on our focus list of 10 companies highlighted in figure 1 for investment. These companies represent more than 85% of the total tea industry market capitalisation, revenue and EBITDA.

Appendix 1: Tea universe[14]

Company Name	Ticker	Location	Actuals[14]	Shares Outstanding (mn)	Close Price (USD)	Mk. Cap (USD mn)	Total Debt (USD mn)	Cash (USD mn)	EV (USD mn)	Revenue (USD mn)	Revenue CAGR (5 Yrs)	EBITDA (USD mn)	EBITDA CAGR (5 Yrs)	EV/EBITDA (x)	P/E (x)	P/BV (x)	EV/Revenue (x)	FCF/EBITDA (%)	FCF/EV (%)	RoA (%)	RoC (%)	RoE (%)	Net Debt/Equity (%)	Net Debt/MK. Cap (%)	Gross Margin (%)	EBITDA Margin (%)	Net Margin (%)	Cash from Ops. (USD mn)	FCF (USD mn)	FCF Yield (%)
Ito En	2593	Japan	FY12	123	18.9	2,201	695	550	2,575	4,628	3.3	388	3.3	6.6	18.9	1.8	0.6	51.1	7.7	5.7	8.4	7.6	30.2	6.6	49.4	6.8	2.2	269	198	9.0
Tata Global Beverages	500800	India	FY12	618	2.9	1,796	180	163	2,030	1,303	10.3	128	(0.6)	15.8	31.4	2.0	1.6	24.5	1.5	4.2	5.2	19.1	37.0	0.9	50.5	12.3	13.3	54	31	1.7
Tenfu Holdings Co.	6868	China	FY11	1,227	0.6	768	52	178	697	278	-	77	-	9.1	18.0	2.8	2.5	23.5	2.6	14.4	17.3	29.5	51.3	(16.4)	51.4	29.4	18.5	49	18	2.3
McLeod Russel India	532654	India	FY12	110	5.6	618	52	7	662	284	18.9	78	36.1	8.5	16.9	1.9	2.3	30.0	3.5	7.3	8.8	12.8	28.0	7.3	72.3	25.0	15.3	52	23	3.8
Taiwan Tea Corporation	2913	Taiwan	FY11	616	0.5	324	78	5	407	52	5.2	(10)	NM	NM	NM	0.9	7.8	NM	(9.9)	(0.8)	(1.1)	0.6	32.4	22.5	4.1	(10.8)	8.1	(8)	(40)	(12.4)
Farmer Brothers Co.	FARM	US	FY12	16	11.4	176	45	25	196	495	16.6	13	19.2	15.0	NM	2.3	0.4	4.6	0.3	(5.7)	(9.3)	(19.5)	32.6	11.4	40.9	(1.2)	(7.1)	18	1	0.3
Ten Ren Tea Co.	1233	Taiwan	FY11	91	1.5	137	0	8	133	68	2.7	11	5.8	12.4	24.5	2.5	2.0	70.2	5.7	7.4	9.3	14.5	1.7	(5.8)	59.0	14.3	10.2	9	8	5.5
Besunyen Holdings Company	926	China	FY11	1,518	0.1	116	-	96	36	133	-	3	-	11.0	NM	0.5	0.3	NM	(230.1)	21.0	28.9	47.1	29.7	(82.7)	87.5	25.8	14.5	(10)	(82)	(70.8)
Ceylon Tea Services PLC	CTEA	Sri Lanka	FY12	20	5.0	100	0	22	79	46	13.5	9	4.1	8.6	9.9	1.8	1.7	80.3	9.4	8.6	9.6	22.4	0.2	(21.7)	41.3	17.7	22.6	10	7	7.4
Dhunseri Petrochem and Tea	523736	India	FY12	35	2.2	76	177	95	161	390	97.5	26	70.2	6.1	15.4	0.6	0.4	(198.9)	(32.6)	4.3	5.7	9.6	98.0	107.4	27.9	10.4	6.4	23	(53)	(69.1)
Finlays Colombo PLC	JFIN	Sri Lanka	FY11	35	2.1	74	2	7	70	44	7.1	4	16.7	18.5	35.3	1.8	1.6	40.0	2.2	3.9	4.6	6.6	7.1	(6.9)	19.3	9.8	6.1	3	2	2.1
Longrun Tea Group Company	2898	Hong Kong	FY12	1,450	0.1	72	3	33	41	44	49.2	8	-	5.1	14.7	1.3	0.9	179.2	34.9	(0.2)	(0.1)	(6.7)	23.9	(42.1)	47.3	(0.8)	(10.8)	17	14	20.0
Warren Tea	508494	India	FY11	11	6.3	67	3	10	62	48	12.3	9	101.8	6.7	18.9	2.3	1.3	30.7	4.6	7.3	10.2	11.5	12.1	(10.6)	75.0	16.7	7.6	6	3	4.2
National Tea Company	NTC	Bangladesh	FY11	7	8.9	59	-	-	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jay Shree Tea & Industries	509715	India	FY12	29	2.0	57	97	5	146	130	21.7	12	57.8	12.2	31.7	0.7	1.1	74.8	6.2	4.9	6.0	13.5	107.5	162.3	48.6	12.0	6.9	15	9	15.8
Goodricke Group	500166	India	FY11	22	2.6	57	4	1	59	87	17.5	12	17.0	5.1	19.2	-	0.7	(33.8)	(6.6)	14.4	24.3	31.8	19.5	4.9	58.7	15.1	9.1	1	(4)	(6.9)
Assam Company India	500024	India	FY11	310	0.1	35	152	11	167	53	12.8	8	19.8	20.3	14.1	0.5	3.1	28.6	1.4	2.2	2.4	3.8	161.9	405.5	64.3	21.0	6.4	9	2	6.8
Sasini	-	Kenya	FY11	228	0.1	30	2	5	28	27	16.0	11	22.0	2.7	4.3	0.4	1.1	30.8	11.6	9.3	11.9	14.2	8.7	(10.1)	77.9	59.3	35.4	5	3	11.0
Rossell India	533168	India	FY12	37	0.7	27	2	2	27	16	6.8	5	9.6	5.4	9.9	0.9	1.7	46.4	8.7	8.1	8.7	15.2	14.6	0.4	77.3	29.3	23.2	4	2	8.7
Wataw ala Plantations PLC	WATA	Sri Lanka	FY12	237	0.1	22	9	4	27	35	6.9	3	-	9.6	18.8	1.0	0.8	(34.1)	(3.5)	6.0	9.2	18.3	52.9	22.6	14.2	11.5	7.7	4	(1)	(4.3)
Kelani Valley Plantations PLC	KVAL	Sri Lanka	FY11	34	0.6	21	10	4	27	54	21.2	6	19.7	4.3	8.0	1.3	0.5	2.8	0.6	4.2	6.9	14.0	53.6	28.1	12.4	11.0	5.8	4	0	0.8
Williamson Tea Kenya	-	Kenya	FY11	9	2.3	21	-	-	-	-	-	-	-	-	2.8	0.5	-	-	-	1.8	2.5	4.3	6.4	-	17.6	7.4	0.0	-	-	-
Kegalle Plantations PLC	KGAL	Sri Lanka	FY12	25	0.8	20	8	14	14	22	8.1	6	15.6	2.2	4.6	0.9	0.6	54.8	25.0	10.7	13.8	29.2	40.7	(31.9)	27.9	24.8	19.8	5	3	16.8
Kahaw atte Plantations PLC	KAHA	Sri Lanka	FY11	80	0.2	18	5	0	22	26	13.6	2	-	9.4	46.0	2.2	0.9	(28.6)	(3.0)	4.9	10.5	13.6	146.1	27.3	9.4	11.8	3.0	2	(1)	(3.7)
Kotagala Plantations PLC	KOTA	Sri Lanka	FY12	32	0.5	17	18	9	32	28	10.5	5	11.2	6.3	6.2	0.9	1.1	71.0	11.2	7.3	11.3	24.7	79.6	52.3	20.7	19.8	13.1	6	4	20.8
Kakuzi	-	Kenya	FY11	20	0.8	16	-	11	12	28	8.2	7	26.4	1.8	4.6	0.6	0.4	78.3	44.4	8.7	12.7	21.9	19.6	(65.0)	39.3	22.6	17.7	9	6	33.7
Namunukula Plantations	NAMU	Sri Lanka	FY12	24	0.6	14	3	1	16	15	6.7	3	17.6	5.0	6.0	1.1	1.1	35.3	7.1	8.5	11.1	23.9	58.2	11.4	24.8	20.4	13.1	3	1	8.2
Hapugastenne Plantations PLC	HAPU	Sri Lanka	FY11	46	0.3	12	6	0	18	28	-	(1)	-	NM	NM	1.3	0.6	NM	(7.4)	2.4	3.2	6.1	81.9	47.4	9.0	7.4	2.3	1	(1)	(10.5)
B&A Ltd.	508136	India	FY12	3	3.9	12	10	1	21	22	-	4	-	5.2	9.2	1.3	1.0	(43.6)	(8.4)	8.4	10.6	15.5	91.7	72.1	53.8	14.6	3.5	2	(2)	(14.4)
Tea Smallholder Factories PLC	TSML	Sri Lanka	FY12	30	0.4	11	1	0	11	14	2.1	0	(13.4)	28.9	50.7	2.2	0.8	(16.0)	(0.6)	7.3	10.7	15.0	3.5	5.0	9.4	7.9	4.8	0	(0)	(0.6)
Williamson Magor & Co. Limited	WILLAMAGOR	India	FY12	11	0.9	10	33	0	41	5	(3.3)	4	(6.0)	9.3	NM	0.3	7.5	(162.5)	(17.6)	2.8	2.8	2.4	65.2	320.8	92.9	75.0	28.9	(7)	(7)	(70.2)
Peria Karamalai Tea & Produce Co.	PERIATEA	India	FY12	3	3.0	9	1	13	(3)	21	35.8	14	93.5	NM	1.1	0.5	NM	(29.4)	159.8	19.4	21.5	34.2	11.7	(137.9)	48.0	29.6	24.4	(3)	(4)	(46.0)
Duncans Industries	DUNCANSIND	India	FY12	53	0.2	9	21	0	60	34	11.3	(3)	-	NM	NM	NM	1.8	NM	(2.2)	(0.7)	(3.8)	(16.9)	530.1	223.1	68.4	(1.1)	20.6	(1)	(1)	(14.5)
Malw atte Valley Plantations PLC	MAL	Sri Lanka	FY11	248	0.0	9	6	4	10	27	8.1	1	(27.8)	8.2	NM	0.6	0.4	(2.4)	(0.3)	4.6	6.8	16.8	47.0	20.2	13.1	11.3	8.1	2	(0)	(0.3)
Bogaw antalaw a Tea Estates Plc	BOPL	Sri Lanka	FY12	84	0.1	8	10	1	17	24	-	(2)	-	NM	NM	1.4	0.7	38.4	(4.2)	(1.3)	(2.4)	(6.4)	155.2	117.2	5.9	1.8	(1.2)	1	(1)	(9.4)
Neelamalai Agro Industries	508670	India	FY12	1	11.7	7	0	2	6	4	-	0	-	22.4	9.6	1.3	1.5	(339.5)	(15.1)	2.4	2.7	21.7	4.7	(23.2)	58.8	8.2	28.0	(0)	(1)	(11.8)
HVA foods	HVA	Sri Lanka	FY12	66	0.1	7	3	0	9	6	-	0	-	24.9	125.6	2.0	1.6	(327.4)	(13.1)	6.2	7.7	39.9	967.8	29.4	17.2	14.0	6.1	(1)	(1)	(16.9)
Balangoda Plantations PLC	BALA	Sri Lanka	FY11	24	0.3	7	2	2	7	23	8.1	(0)	(41.9)	NM	60.4	0.6	0.3	NM	(19.0)	1.0	1.7	6.8	18.6	(6.1)	7.8	5.2	3.4	1	(1)	(18.8)
Agalaw atte Plantations PLC	AGAL	Sri Lanka	FY11	25	0.3	6	10	2	16	24	10.0	2	(1.4)	6.9	14.4	0.9	0.7	(78.7)	(11.4)	3.2	5.6	8.8	140.0	120.2	17.0	10.9	2.2	0	(2)	(27.9)
Terai Tea Company	530533	India	FY12	7	0.8	5	9	1	12	13	-	1	-	9.5	44.9	0.7	0.9	(80.6)	(8.5)	2.1	2.3	0.9	89.1	143.6	22.9	9.9	0.7	0	(1)	(19.9)
Horana Plantations PLC	HOPL	Sri Lanka	FY12	25	0.2	5	5	0	9	16	8.6	2	3.5	5.6	9.8	0.6	0.6	(16.6)	(3.0)	6.0	9.0	18.2	64.4	85.9	14.2	14.7	7.7	2	(0)	(5.5)
Talaw akelle Tea Estates PLC.	TPL	Sri Lanka	FY11	24	0.2	5	9	0	14	25	12.0	1	(3.9)	9.9	NM	0.6	0.6	(39.3)	(4.0)	3.1	4.7	3.7	96.0	181.4	10.3	10.9	1.4	1	(1)	(11.1)
Udapussellaw a Plantations PLC	UDPL	Sri Lanka	FY11	19	0.2	4	4	0	7	11	5.9	(1)	-	NM	NM	1.8	0.7	NM	1.4	0.5	0.5	(1.9)	186.6	97.3	8.0	5.2	(0.9)	0	0	2.4
Bengal Tea & Fabrics	532230	India	FY12	9	0.4	4	15	2	16	36	10.0	0	(21.0)	NM	NM	0.5	0.5	NM	24.7	2.8	3.3	2.8	152.4	330.8	26.8	10.0	1.1	6	4	101.3
Madulsima Plantations PLC	MADU	Sri Lanka	FY11	29	0.1	4	2	0	5	13	7.4	(3)	-	NM	NM	0.3	0.4	NM	(12.1)	(4.4)	(8.3)	(18.1)	53.3	47.3	(8.2)	(9.1)	(5.9)	(0)	(1)	(16.4)
Diana Tea Co.	530959	India	FY11	15	0.3	4	2	0	6	10	4.2	1	(18.5)	6.7	51.3	0.3	0.6	(307.8)	(46.1)	4.8	5.5	8.0	23.5	48.8	61.1	15.8	10.1	(2)	(3)	(75.8)
Lykis Limited	530689	India	FY11	13	0.2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asian Tea & Exports	519532	India	FY11	10	0.3	3	-	-	8	-	-	-	-	-	15.4	0.6	-	-	-	8.0	9.0	4.5	114.3	-	10.4	4.9	0.7	-	-	-
Maskeliya Plantations PLC	MASK	Sri Lanka	FY12	27	0.1	3	8	0	11	24	9.4	(2)	(0.4)	NM	NM	0.3	0.5	NM	(24.7)	(0.1)	(0.4)	(6.9)	64.4	289.0	6.1	2.9	(3.0)	(1)	(3)	(105.8)
Tyroon Tea Co.	526945	India	FY12	3	0.7	2	0	1	2	4	12.5	0	21.6	4.1	12.3	0.9	0.4	17.3	4.3	5.8	8.1	12.9	20.4	(32.9)	47.8	10.6	7.6	0	0	3.0
T & I Global	522294	India	FY12	5	0.2	1	0	1	0	12	28.5	1	20.1	0.5	6.0	-	0.0	37.1	77.5	4.1	6.0	4.2	14.3	(82.2)	22.4	7.0	1.7	1	0	17.9
Ledo Tea Company	508306	India	FY12	1	1.3	1	0	0	2	2	1.4	(0)	-	NM	NM	1.9	1.0	NM	(3.3)	0.1	0.1	(3.6)	49.3	41.5	61.1	2.7	(1.8)	0	(0)	(4.6)
Tanzania Tea Packers	TATEPA	Tanzania	FY11	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Median														**8.2**	**15.1**	**0.9**	**0.8**	**20.4**	**0.0**	**4.7**	**6.4**	**12.2**	**48.2**	**21.3**	**27.9**	**11.1**	**6.6**			**(0.5)**
Average														**9.4**	**22.0**	**1.1**	**1.3**	**(18.1)**	**(0.6)**	**5.1**	**6.7**	**11.0**	**84.0**	**52.4**	**36.1**	**13.8**	**8.4**			**(7.2)**

Source: Capital iq, Created on 7 November 2012, Gross margin, EBITDA margin, PAT margin, RoC, RoE, RoA, Debt/Equity are based on the last 5 years average

[14] Figures are actual based on last reported year

Rohit Anand, the Research Analyst who prepared this report, hereby certify that the views expressed in this report accurately reflect the analyst's personal views about the subject companies and their securities. The Research Analyst has not been, is not and will not be receiving direct or indirect compensation for expressing the specific recommendation or view in this report.

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Important Disclosures

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