

Aquaculture

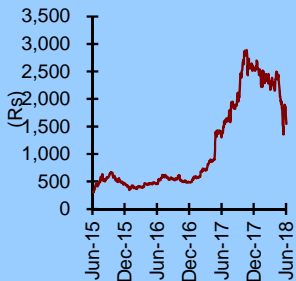
Target price Rs1,901

Shareholding pattern

	Sep '17	Dec '17	Mar '18
Promoters	43.9	43.8	43.8
Institutional investors	30.1	30.2	31.2
MFs and UTI	1.0	1.4	1.6
Insurance co	0.0	0.0	0.0
FIs	29.1	28.8	29.6
Others	26.0	26.0	25.0

Source: BSE

Price chart



INDIA

Avanti Feeds

BUY

Good business, bad year; time to accumulate **Rs1,545**

Reason for report: Initiating coverage

We initiate coverage on Avanti Feeds (Avanti), market leader in shrimp feed and a growing player in shrimp exports. Avanti benefits from: 1) numerous moats such as strong brands, established distribution, multiple manufacturing units and sub-segmentation strategy; and 2) relationship with global sea food major, Thai Union. We expect India's shrimp exports (value) to grow in mid-teens and Avanti to be a major beneficiary of this trend. With strong financials (>35% return ratios and FCF/PAT of 66% over FY13-18), we expect Avanti's earnings growth to resume in FY20E after a decline in FY19E due to lower margins. We initiate with a BUY rating and DCF based target price of Rs1,901 (implied target P/E 20x FY20E EPS).

- **Shrimp export opportunity:** India's shrimp export growth has been propelled by three factors: 1) the government in 2009 allowed cultivation of the much-in-demand *L. Vannamei* shrimps, 2) rising shrimp consumption in the US (4% CAGR over CY12-CY17) with just 1.1% inflation in shrimp prices compared to 2.3-7.3% in other meat products during the same period, and 3) collapse of Thailand's shrimp exports after outbreak of EMS disease in 2012. India's shrimp exports in value terms grew at a CAGR of 28.5% over FY11-FY17 and we expect it to grow in mid-teens on the back of: 1) consumption growth of 4-5% p.a. in the US, 2) market share gains from South-East Asia, 3) higher exports to Europe and the Middle East, and 4) better realisation with shift to value-added products and INR depreciation.
- **Established moats in shrimp feed business:** Avanti's moats include: 1) strong brands; 2) wide distribution network; 3) multiple manufacturing units to reduce freight costs, and 4) sub-segmentation strategy. The company's market share in shrimp feeds industry has grown from 26.1% in FY13 to 43% in FY18.
- **Advantage of association with Thai Union:** Avanti benefits immensely from its association with Thai Union, a global sea food major, which holds 25% stake in the company and 40% stake in Avanti's shrimp export subsidiary. We believe Thai Union's expertise helps Avanti in branding, technology and marketing. Ahead, Avanti can leverage Thai Union's relationships to expand its shrimp processing business.
- **Earnings growth to resume after a pause in FY19E:** Avanti's EBITDA margin expanded to 20.1% in FY18 from 10-12% over FY13-17 due to fall in prices of major commodities (fishmeal and soyabean). However, with steep inflation in same inputs lately, we expect margin to decline to 12.9% in FY19. Though we expect PAT to shrink in FY19 from high base of FY18, it to inch up by 22.5% in FY20E over FY19E.
- **Initiate with BUY:** We believe Avanti is a structurally good business with return ratios of >35% (way above cost of capital) over FY13-18 and healthy cash-flows with FCF/PAT of 66% over the same period. We value the stock at a target price of Rs1,901 as per DCF (discount rate: 13.3%, and terminal growth rate: 3%). At our target price, the stock will trade at an implied P/E of 20x on FY20E EPS.

Market Cap	Rs70bn/US\$1bn	Year to March	FY17	FY18P	FY19E	FY20E
Reuters/Bloomberg	AVNT.BO/AVNT IN	Revenue (Rs mn)	27,327	33,929	40,935	47,448
Shares Outstanding (mn)	45.4	Adj. Net Profit (Rs mn)	2,143	4,473	3,526	4,318
52-week Range (Rs)	2888/1358	Dil. Rec. EPS (Rs)	47.2	98.5	77.6	95.1
Free Float (%)	56.2	% Chg YoY	39.5	108.7	(21.2)	22.5
FII (%)	29.6	P/E (x)	32.7	15.7	19.9	16.2
Daily Volume (US\$'000)	8,344	CEPS (Rs)	50.2	103.7	84.1	102.3
Absolute Return 3m (%)	(31.2)	EV/EBITDA (x)	20.0	9.7	12.5	10.5
Absolute Return 12m (%)	14.9	Dividend Yield (%)	0.6	0.7	0.9	1.1
Sensex Return 3m (%)	8.6	RoCE (%)	52.0	66.6	36.7	35.2
Sensex Return 12m (%)	15.5	RoE (%)	39.8	52.1	29.5	28.7

Please refer to important disclosures at the end of this report

Research Analyst:

Aniruddha Joshi

Aniruddha.joshi@icicisecurities.com

+91 22 6637 7249

TABLE OF CONTENT

About Avanti Feeds	3
Shrimp export opportunity: A narrative of three tales	4
Government of India allowed cultivation of <i>L. Vannamei</i> in 2009	4
Rising shrimp consumption in the US	6
Fall of Thailand is India's gain	7
Tie-up with Thai Union: A strategic advantage.....	12
Established moats in growing shrimp feed business.....	14
What if shrimp prices decline?.....	19
Peer group comparison.....	23
Financial performance.....	24
Key assumptions	27
Valuation	28
DCF-based valuation	28
P/E-based valuation	28
Key risks.....	29
About the promoters and management team	30
Financials.....	31
Index of tables and charts.....	34

About Avanti Feeds

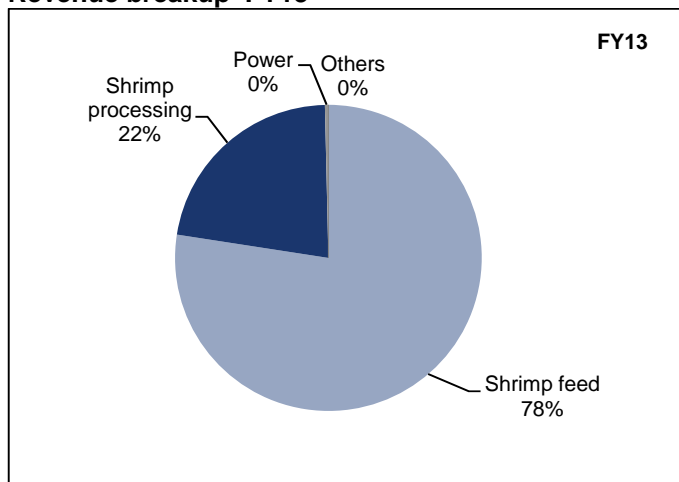
Hyderabad-based Avanti Feeds (Avanti) is one of the major shrimp processing and shrimp feed companies in India. Mr. Alluri Indra Kumar is the chairman and managing director of the company, in which Thai Union holds 25% stake. Avanti generated 83% of its revenues from shrimp feed and 13% from shrimp processing in FY18. However, EBIT contribution of the shrimp feed business is 90% and that of shrimp processing is 10%.

The shrimp feed segment's major areas of operations are in Andhra Pradesh, Tamil Nadu, Odisha and Gujarat. The shrimp export business procures shrimp from Andhra Pradesh and sells them in the US.

The company is leader in shrimp feed business with ~43% market share. Its major brands in shrimp feed business are *Profeed*, *Champ*, *Mannamei* and *Titan*.

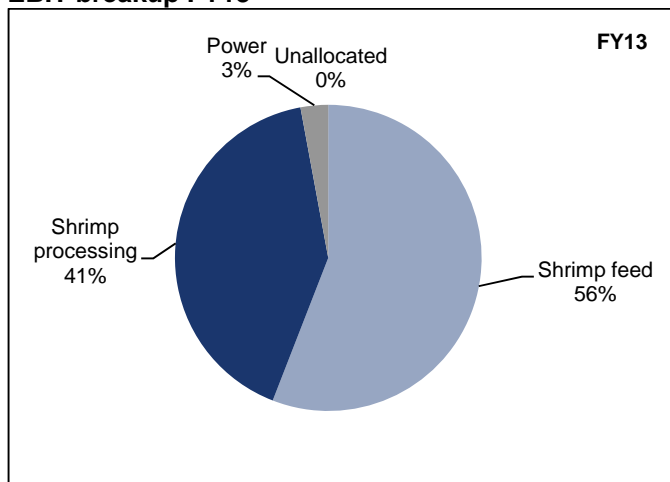
Chart 1: Revenue and EBIT breakup

Revenue breakup FY13



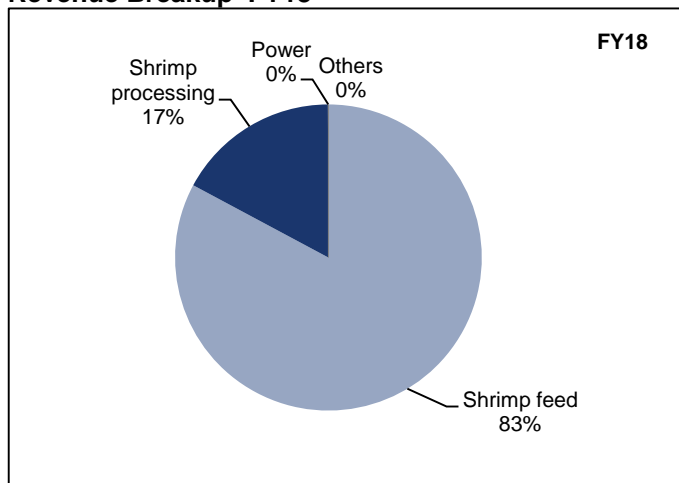
Source: Company data, I-Sec research

EBIT breakup FY13



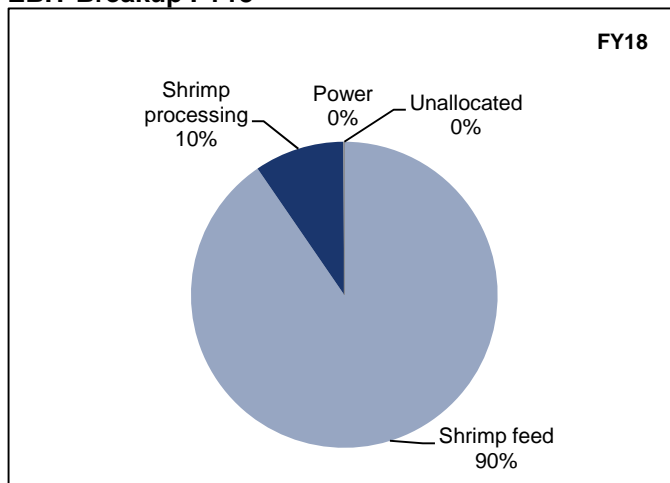
Source: Company data, I-Sec research

Revenue Breakup FY18



Source: Company data, I-Sec research

EBIT Breakup FY18



Source: Company data, I-Sec research

Shrimp export opportunity: A narrative of three tales

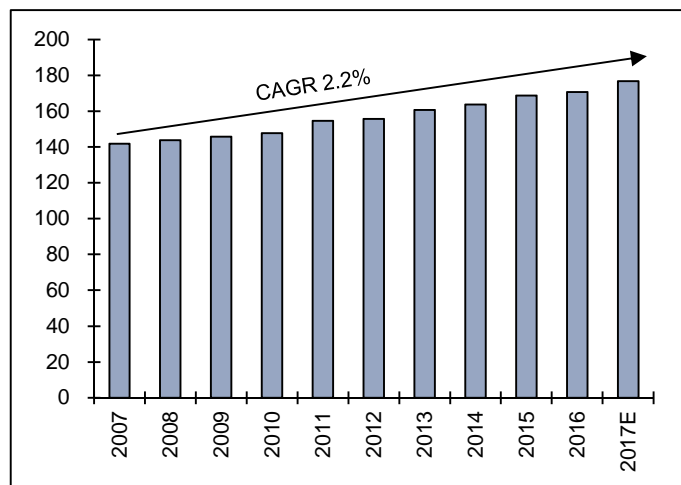
Globally, the entire fish industry is moving from capture fish to aquaculture. The share of aquaculture has moved up from 35% of the total industry in 2007 to 46% in 2017. Aquaculture offers key benefits such as

- Lower costs of cultivation
- Product standardisation.

However, only some fishes and shrimps are commercially cultivable. Of the major fish species consumed, we note tuna, tilapia and shrimps are cultivated whereas salmon and lobster are still wild caught.

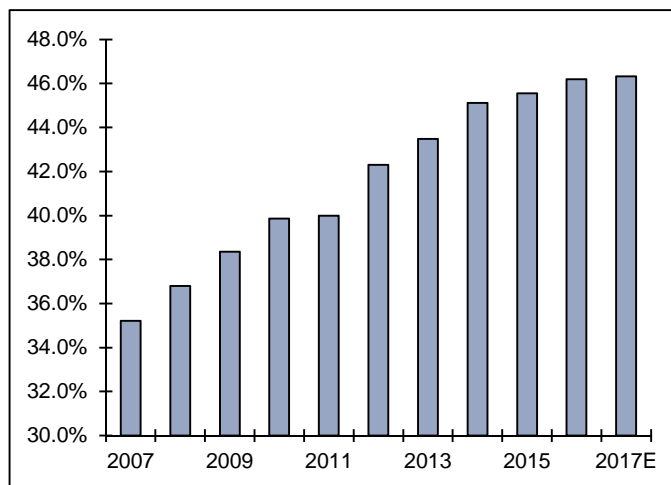
Due to possibility of commercially viable cultivation, the production of shrimps, tuna and tilapia is on the rise.

Chart 2: Growing global seafood consumption



Source: Company data, I-Sec research (million MT)

Chart 3: Rising penetration of aquaculture



Source: Company data, I-Sec research

The Indian shrimp export opportunity

Shrimp exports from India reported a volume CAGR of 18.7% over FY11-FY17. Following were the three major reasons for such steep growth:

- Government of India allowed cultivation of the much-in-demand *L. Vannamei* shrimps in 2009
- Rising consumption of shrimps in the US
- Fall of Thailand in the global shrimp market turned out to be India's gain

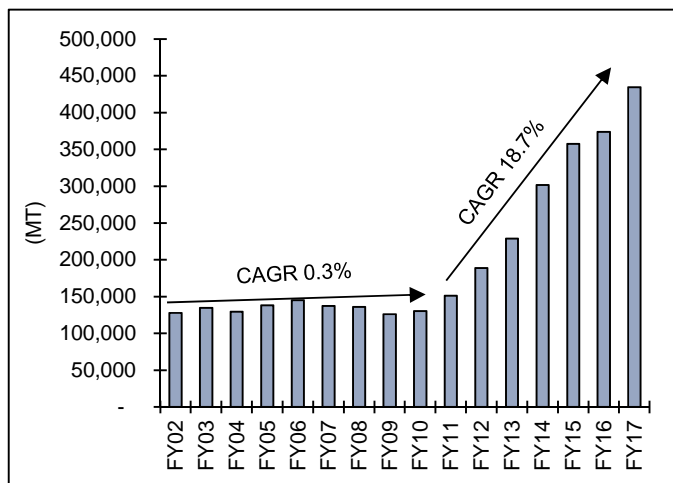
Government of India allowed cultivation of *L. Vannamei* in 2009

The government of India allowed cultivation of genetically modified '*Pacific white*' shrimps (*L. Vannamei*) in 2009. As a result, shrimp exports (volumes) which were rising at a paltry CAGR of just 0.3% from FY02-FY10 grew at CAGR of 18.7% over FY11-FY17. Prior to exporting *L. Vannamei* shrimps, India used to export *Black Tiger*

shrimps, which are susceptible to multiple diseases, hence their commercial cultivation is not easy.

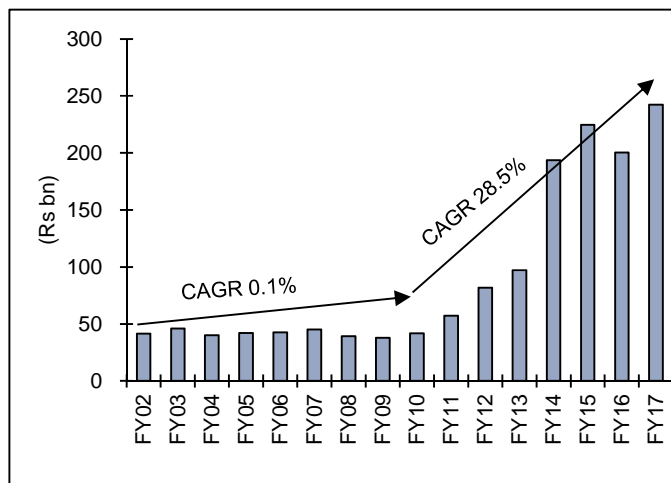
India's shrimp exports in value terms grew at a CAGR of 28.5% over FY11-FY17 with a volume CAGR of 18.7%, realisation growth of 2.6%, change in product mix (frozen shrimps to prepared shrimps) ~1%, and INR depreciation ~4%.

Chart 4: Shrimp exports – Volume growth



Source: Company data, I-Sec research

Chart 5: Shrimp exports – Value growth



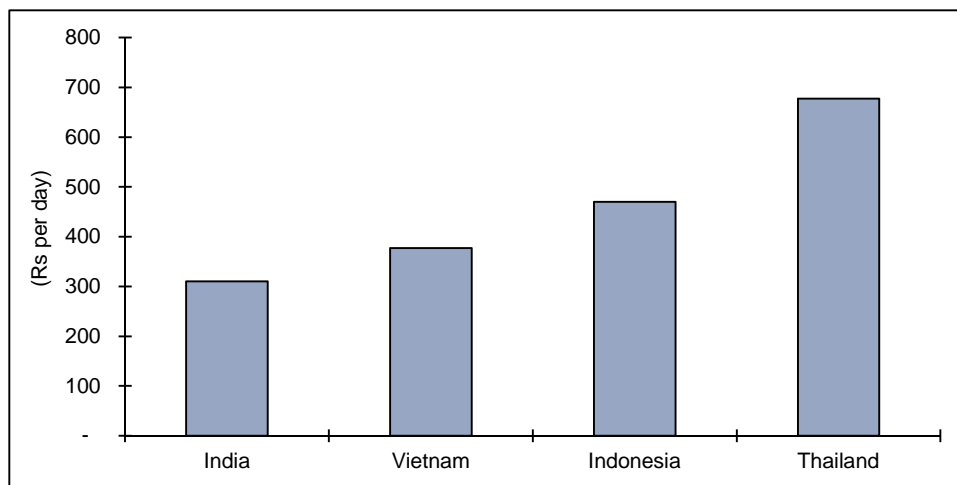
Source: Company data, I-Sec research

India's structural advantages in shrimp industry

Apart from higher labour intensity, the shrimp industry requires brackish water, hot temperatures and investments in ponds (i.e. land near seashore). India scores heavily on all these parameters.

Lower labour costs: India's labour costs per day stands at ~Rs310 whereas the comparable cost in South-East Asian countries is substantially higher. The minimum wages per day stand at Rs470 in Indonesia, Rs677 in Thailand and Rs377 in Vietnam. Lower labour costs than peer countries remain a major competitive advantage for India.

Chart 6: Rural wages per day are lower in India than in South-East Asia



Source: Company data, I-Sec research

Rich supply of land near seashore with brackish water: India has a coastline of 8,118km and access to 1.2mn hectares of brackish water. Of this, less than 15% resources are utilised as of now.

Hot weather suitable for shrimps: Shrimps are generally cultivated in countries with hot weather. We note the regions such as North America and Europe are consumers of shrimp, but the production is negligible in these countries. As most of the major consumers of shrimp (except China) have colder weather, we note India has a strong advantage.

Rising shrimp consumption in the US

Improving affordability of shrimps

Shrimp prices in USA have increased at a CAGR of just 1.1% over past 15 years whereas prices of other meat products have grown at CAGR of 2.3-7.3%. Negligible inflation in shrimp prices as well as higher inflation in other meat products has improved affordability of shrimp in the US.

Table 1: Stable shrimp prices in the US improving affordability

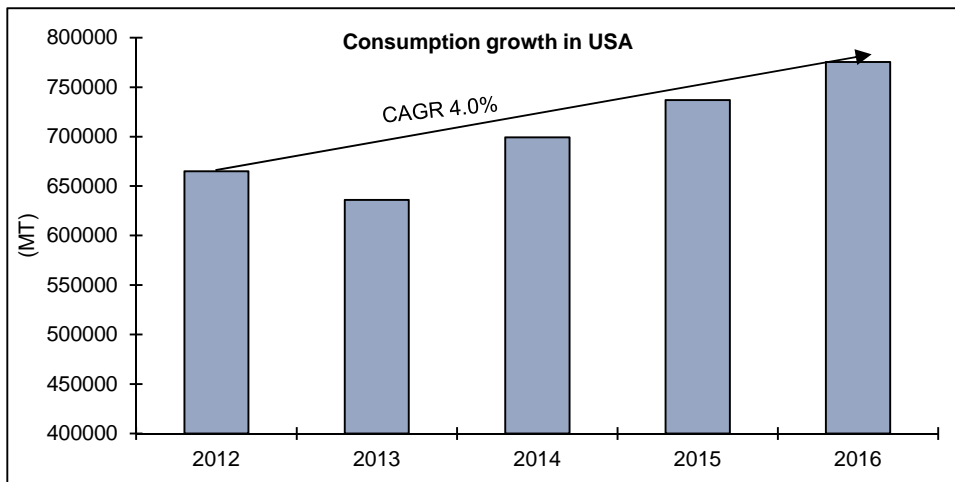
US\$/kg	Shrimp	Salmon	Chicken	Beef	Lamb
CY03	11.4	2.9	1.5	2.0	3.9
CY04	10.2	3.3	1.7	2.5	4.6
CY05	10.3	4.1	1.6	2.6	4.4
CY06	10.2	5.1	1.5	2.5	4.0
CY07	10.1	4.5	1.7	2.6	4.1
CY08	10.7	4.8	1.9	3.1	4.6
CY09	9.5	4.9	1.9	2.6	4.3
CY10	10.0	6.1	1.9	3.4	5.3
CY11	11.9	6.0	1.9	4.0	6.6
CY12	10.1	4.7	2.1	4.1	6.1
CY13	14.2	6.7	2.2	4.1	5.6
CY14	17.8	6.6	2.3	4.9	6.4
CY15	13.2	5.3	2.0	4.4	5.2
CY16	11.2	7.1	1.9	3.9	4.7
CY17	13.3	7.9	2.1	4.2	5.4
CAGR	1.1%	7.3%	2.6%	5.5%	2.3%

Source: Indexmundi, I-Sec research

Rising consumption in the US

Shrimp consumption in volume terms in the US has expanded at a CAGR of 4% over CY12-CY16 largely aided by improving affordability. Consumption in value terms has increased at a CAGR of 6.4% over same timeframe.

Chart 7: Shrimp consumption growth in the US



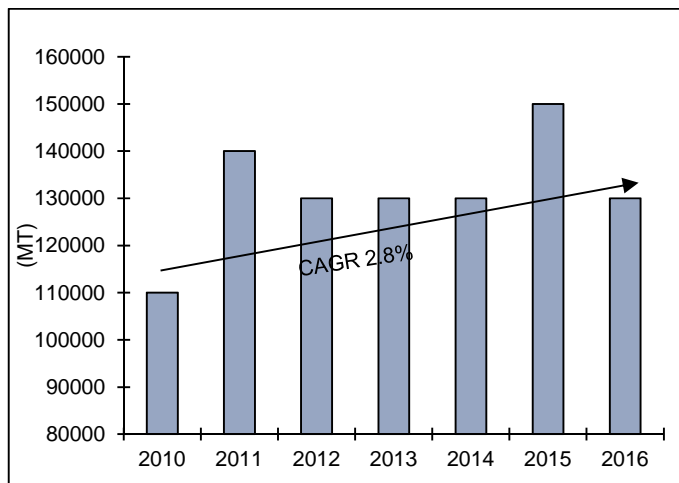
Source: Company data, I-Sec research

Limited shrimp production in the US

Shrimp production in the US is less than 20% of total consumption in US. It has also grown at a CAGR of just 2.8% over past seven years. We also note that shrimps require warm and brackish water as well as warm weather. As both these things are in limited supply in the US, scope to increase production is limited. Almost the entire shrimp production in the US is from wild catch and not aquaculture.

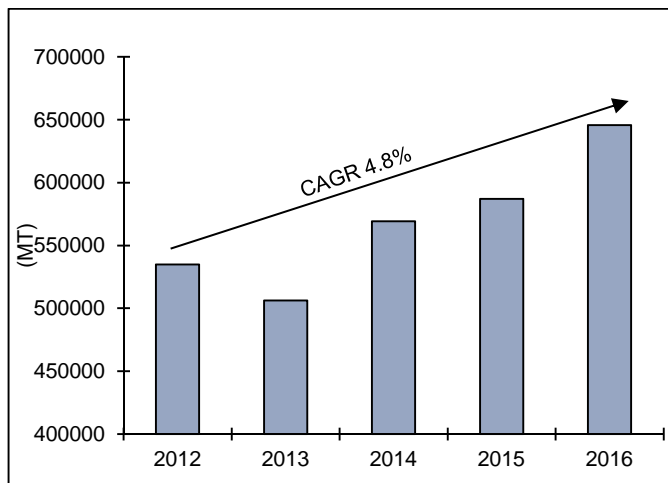
Negligible growth in shrimp production in the US is leading to rising shrimp imports, which have increased at a CAGR of 4.8% over CY12-CY16.

Chart 8: Limited growth in shrimp production...



Source: Company data, I-Sec research

Chart 9: ...leading to higher imports in the US



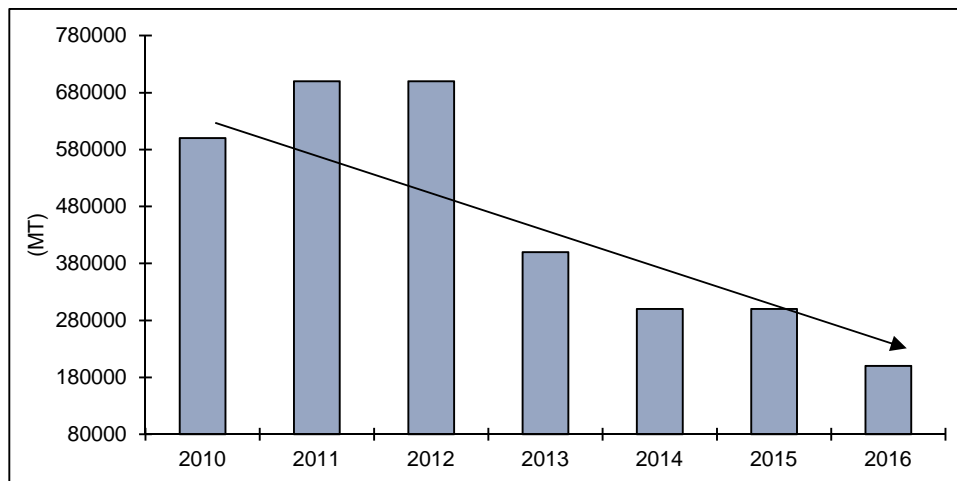
Source: Company data, I-Sec research

Fall of Thailand is India's gain

Prior to 2013, Thailand was one of the largest exporters of shrimp globally. Outbreak of Early Mortality Syndrome (EMS) shrimp disease in 2013 resulted in steep decline in shrimp production in Thailand. However, this has worked as boon for India. Thailand used to export 25% of shrimp globally in 2012 whereas India's share stood at 12% that year. With fall in Thailand's shrimp production, India's share expanded to 27% in 2016 whereas Thailand's share declined to 14%.

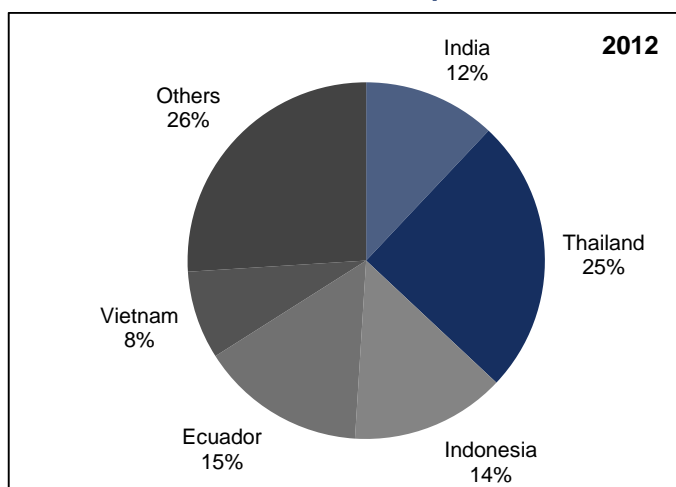
Shrimp industry in Thailand's neighboring country Indonesia also suffered from EMS and its share in global exports declined from 14% in 2012 to 9% in 2016.

Chart 10: Declining shrimp production in Thailand



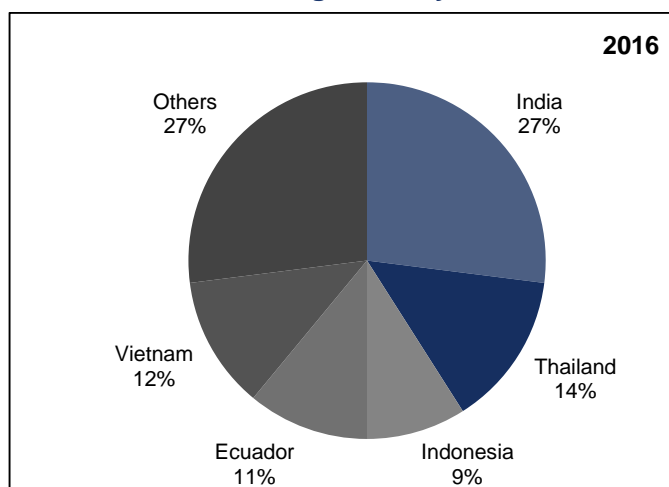
Source: Company data, I-Sec research

Chart 11: Thailand's share of exports to the US...



Source: Company data, I-Sec research

Chart 12: ...declined significantly over 2012-16



Source: Company data, I-Sec research

Why can't Thailand's shrimp production move up easily: We believe shrimp production in Thailand will not grow rapidly due to following factors:

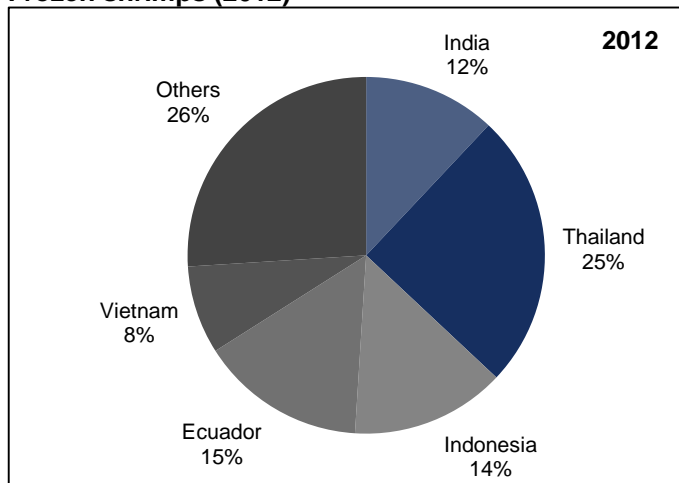
- The country is still facing the issue of EMS. As of now, no organic solution has been found for EMS, hence the shrimp industry in Thailand will continue to be impacted by EMS.
- Thailand's labour costs are higher compared to India.
- The land available for cultivation of shrimps is also limited in Thailand, where priority is for cultivation of rice and tuna fish.
- As production of soyabean and wheat, key raw materials for shrimp feed is limited in South East Asian countries, the shrimp feed is costlier in these countries. Thus the overall cost index moves upwards. Hence, we believe shrimp production in Thailand may not revive immediately.

India’s market share has grown in frozen and prepared shrimps

India’s market share in exports of frozen shrimps has expanded from 15% in 2012 to 31% in 2016. Whereas the market share in exports of prepared (value-added) shrimps has expanded from 2% in 2012 to 9% in 2016.

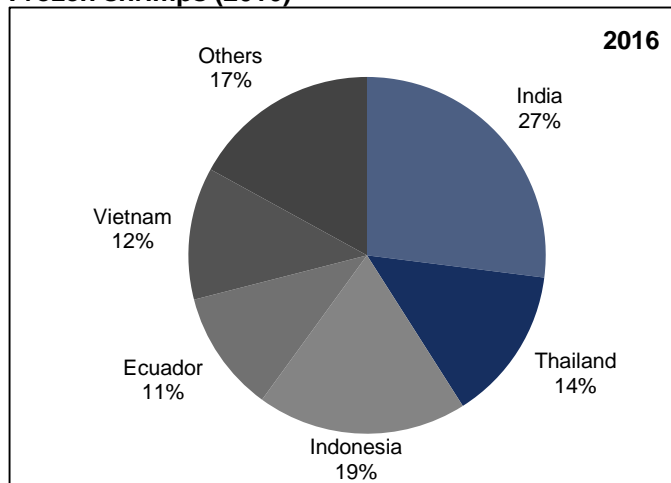
Chart 13: India’s share of exports growing across frozen and value-added shrimps

Frozen shrimps (2012)



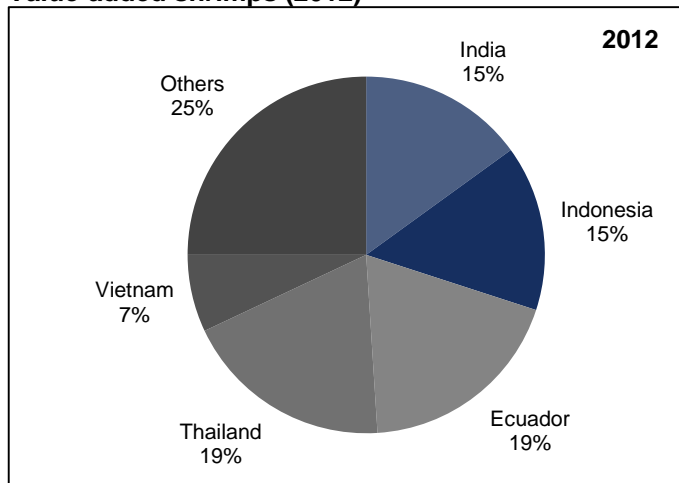
Source: Company data, I-Sec research

Frozen shrimps (2016)



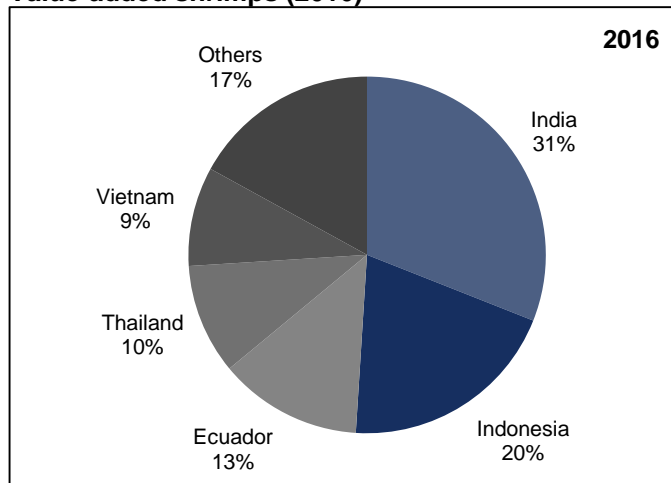
Source: Company data, I-Sec research

Value-added shrimps (2012)



Source: Company data, I-Sec research

Value-added shrimps (2016)

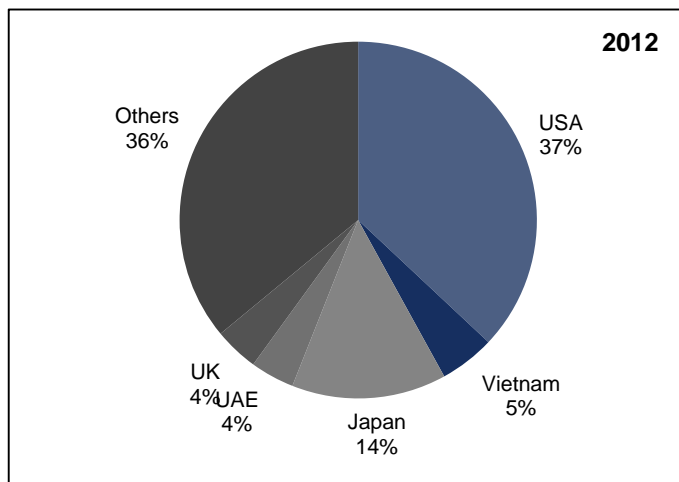


Source: Company data, I-Sec research

Export opportunity apart from the US

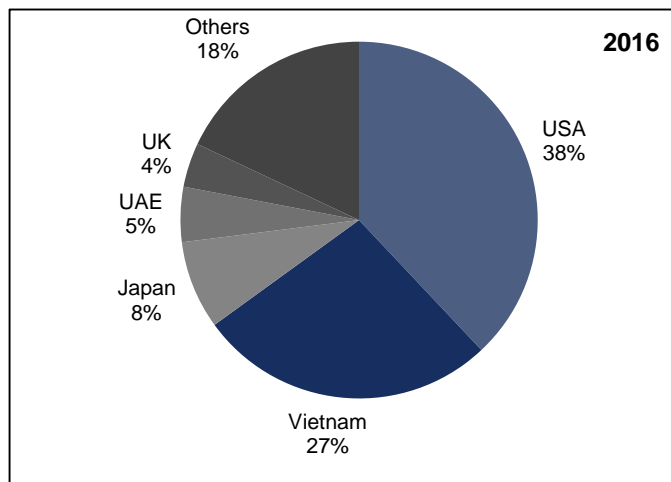
The US accounts for just 37% of India’s overall shrimp exports. We note, with negligible inflation in shrimp prices as well as improving affordability, shrimp consumption is expected to grow in multiple countries. Even if the consumption growth slows down in the US, Indian shrimp exporters will be able to cater to other countries. Indian shrimp exporters have started exporting to the Middle East. Also as per Thai Union, China is expected to be a net importer of shrimp in the coming years, which will help drive exports from India.

Chart 14: The US accounted for just ~37% of...



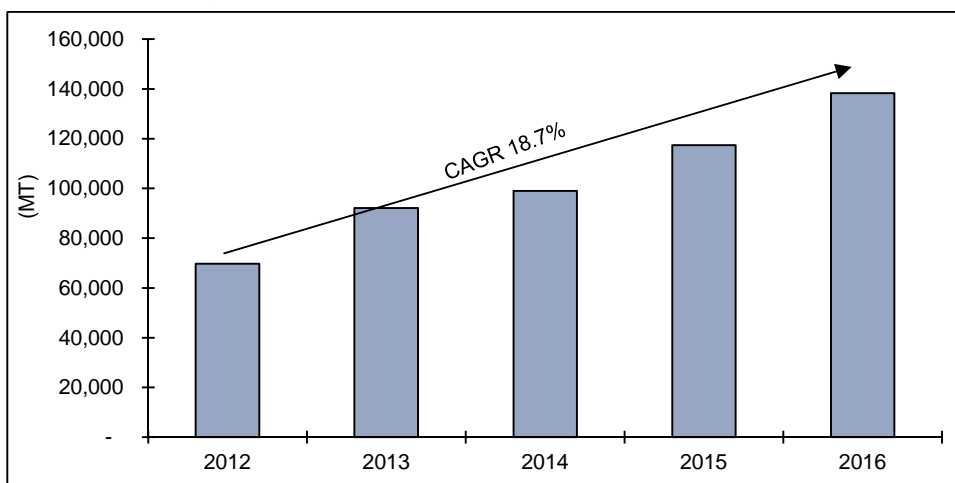
Source: Company data, I-Sec research

Chart 15: ...India's shrimp exports in 2012 & 2016



Source: Company data, I-Sec research

Chart 16: Rising shrimp imports in China



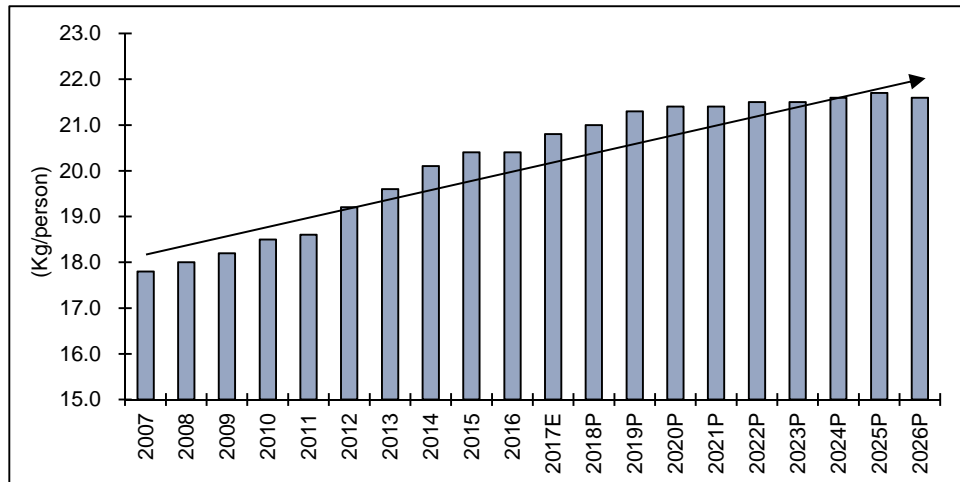
Source: Company data, I-Sec research

Opportunity to export other seafood

Of all seafood exported from India, shrimps account for lion's share. However, considering the country's long coastline, lower labour costs and access to brackish as well as warm water and weather, India will be able to cultivate many species of seafood. Industry experts believe India has potential to commercially cultivate tuna as well as tilapia fish.

Global per capita seafood consumption is on growth path, which indicates a need for greater seafood cultivation and we see India in a strong position to gain a major share of the incremental consumption.

Chart 17: Per capita global seafood consumption on the rise

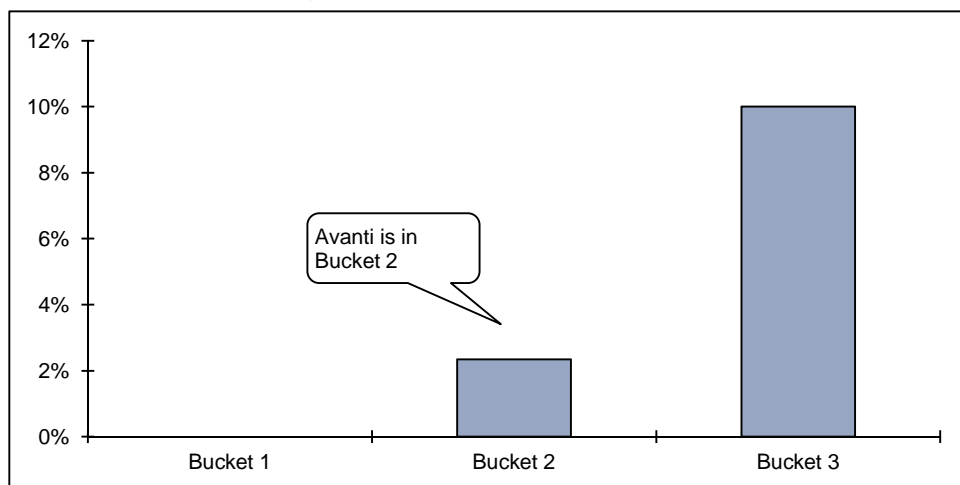


Source: Company data, I-Sec research

Avanti’s advantage of just 2.34% anti-dumping duty

In the interests of fair trade as well as to protect local industry, the US government levies certain anti-dumping duties on imported shrimp. We note three different types of duties are levied on shrimp importers in the US. Most exporters are required to pay ~10% duty. Exporters of only value-added shrimps are generally exempted from paying any anti-dumping duty. Some players such as Avanti have to pay just 2.34% duty. We believe, as Avanti is required to pay duty significantly lower than other players, it enjoys a structural competitive advantage in the US market.

Chart 18: Anti-dumping duty on shrimp importers in the US



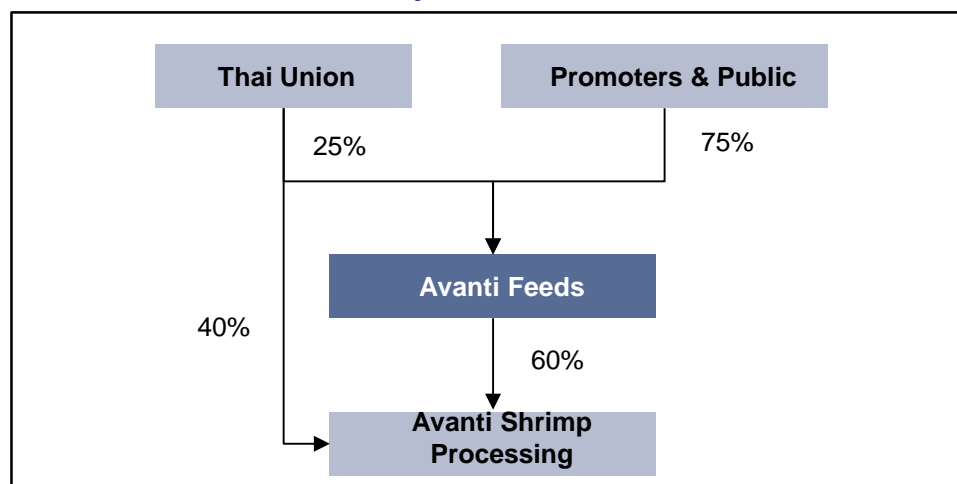
Source: Company data, I-Sec research

Tie-up with Thai Union: A strategic advantage

Ownership structure of Avanti

One of the major advantages of Avanti is its association with the major seafood exporter, Thai Union, which holds 25% stake in the company. Thai Union also holds 40% stake in Avanti's shrimp processing subsidiary. We believe association with Thai Union is helping Avanti with technology, products, clients and support in sales and marketing.

Chart 19: Thai Union holds major stake in Avanti's business



Source: Company data, I-Sec research

About Thai Union

Thai Union, leading global seafood company, sells canned as well as frozen seafood such as tuna, salmon, lobster and shrimp in various countries. It sells these products under its own brand as well as private labels of large retail outlets and also sells in institutional markets. Thai Union started business in 1977 as processor and exporter of canned tuna. It acquired the 'Chicken of the sea', a major seafood brand in the US in 1997. Over the past 20 years, Thai Union has acquired/invested in multiple seafood companies in Vietnam, the US, India, France, Japan, Norway and Canada. It has also acquired 25% stake in *Red Lobster* chain of seafood restaurants in the US. Major brands of the company include 'King Oscar' in addition to 'Chicken of the sea'.

Table 2: Key financials of Thai Union

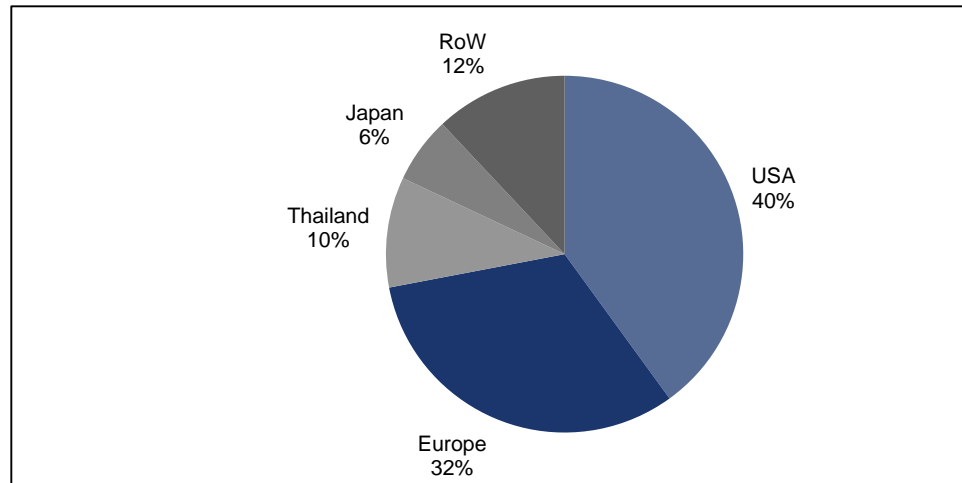
Thai baht (mn)	2012	2013	2014	2015	2016	2017	CAGR (%)
Net sales	106,698	112,813	121,402	125,183	134,375	136,535	5.1
EBIT	7,921	5,628	8,318	8,506	8,092	8,149	0.6
PAT	4,693	2,853	5,092	5,302	5,254	6,021	5.1
Net worth	40,344	43,347	47,467	48,626	47,436	48,227	
Debt	42,276	51,465	54,232	45,374	75,858	77,478	
Capital employed	82,620	94,812	101,699	94,000	123,294	125,705	
EBIT margin (%)	7.4	5.0	6.9	6.8	6.0	6.0	
PAT margin (%)	4.4	2.5	4.2	4.2	3.9	4.4	
RoE (%)	11.6	6.6	10.7	10.9	11.1	12.5	
RoCE (%)	9.6	5.9	8.2	9.0	6.6	6.5	
Debt/Equity (x)	1.0	1.2	1.1	0.9	1.6	1.6	
Growth rates (%)							
Net sales		5.7	7.6	3.1	7.3	1.6	
EBIT		(28.9)	47.8	2.3	(4.9)	0.7	
PAT		(39.2)	78.5	4.1	(0.9)	14.6	

Source: Company data, I-Sec research

Possibility of business opportunity in other markets

We note Avanti sells its shrimp primarily in the US. However, as Thai Union sells seafood products across various countries, it can create strong growth opportunity for Avanti. Thai Union generates 32% of its sales from Europe and 6% from Japan, which too are big markets for shrimps.

Chart 20: Geographic revenue breakup of Thai Union



Source: Company data, I-Sec research

Business opportunity of selling shrimps to *Red Lobster*

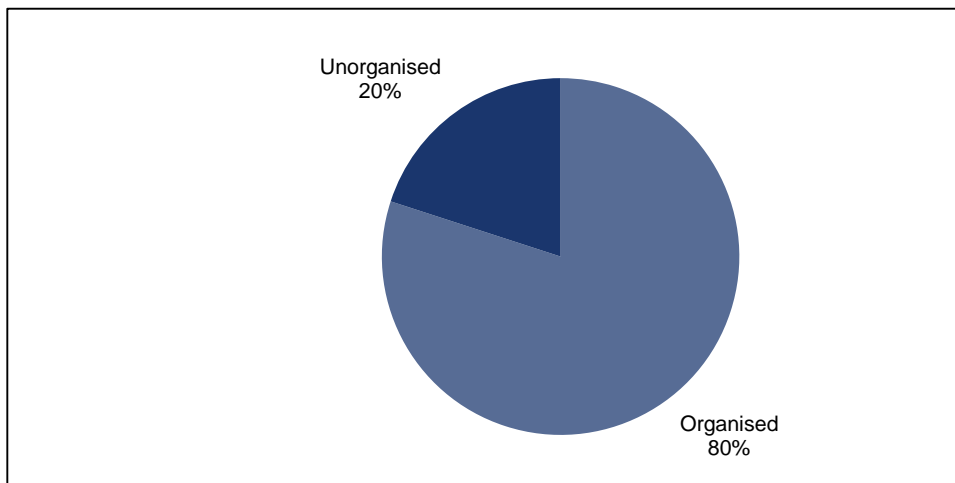
Thai Union holds 25% stake in *Red Lobster*, one of the largest seafood restaurant companies in the US. As of now *Red Lobster* procures shrimp from various processors globally. We note, as Avanti will ramp up its shrimp processing facilities, it will be able to cater to the demands of *Red Lobster*.

Established moats in growing shrimp feed business

Shrimp feed opportunity

Most of India's shrimp production is exported to Western countries, which have stringent quality norms. Hence, Indian farmers prefer to use branded feed of best possible quality. Therefore, 80% of India's shrimp feed industry is in the organised sector.

Chart 21: Organised sector dominates Indian shrimp feed industry

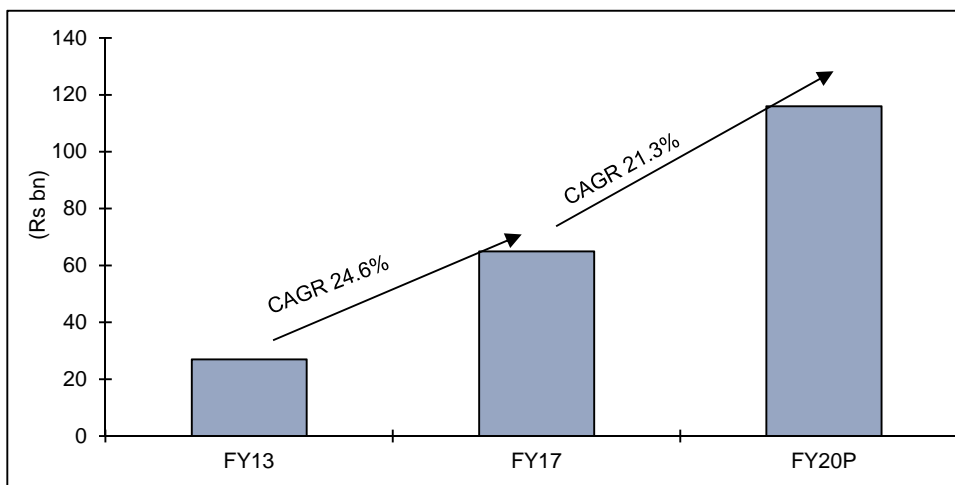


Source: Company data, I-Sec research

FCR of 1.6-1.7x ensures growth in line with shrimp production

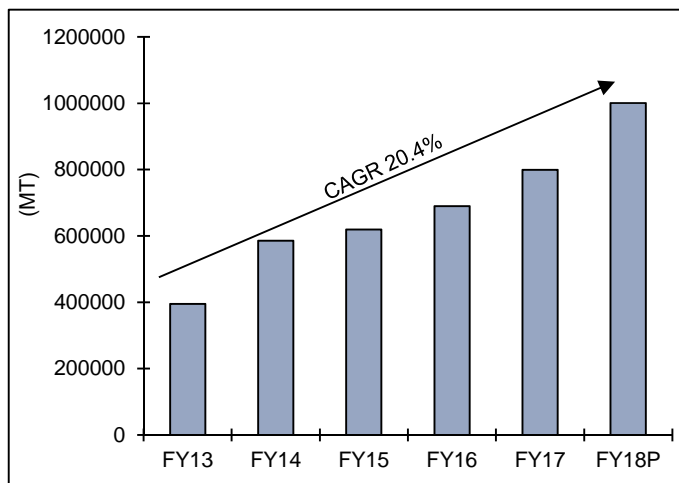
The Feed Conversion Ratio (FCR) in this industry is 1.6-1.7. Shrimps are cultivated for a period of ~120 days in the pond before further processing and consumption. Farmers put feed in the pond in ratio of 1.6-1.7x of the shrimp's weight. Thus, the shrimp feed industry is growing in direct correlation with shrimp production.

Chart 22: Shrimp feed market growth



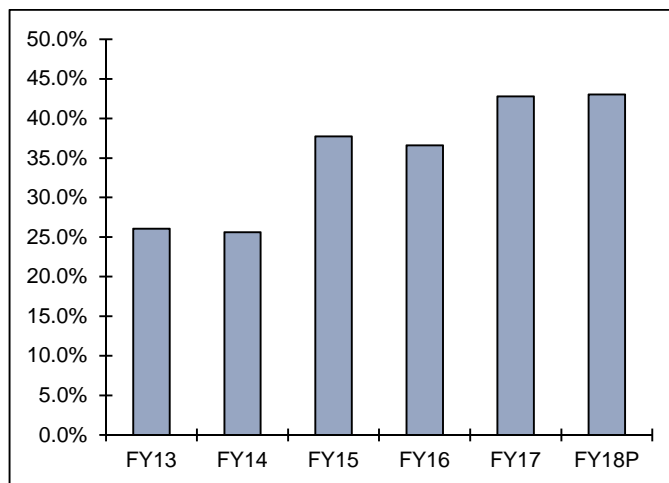
Source: Company data, I-Sec research

Chart 23: Shrimp feed market growing at CAGR of 20.4% over FY13-FY18



Source: Company data, I-Sec research

Chart 24: Avanti has steadily gained market share in a growing shrimp feed market

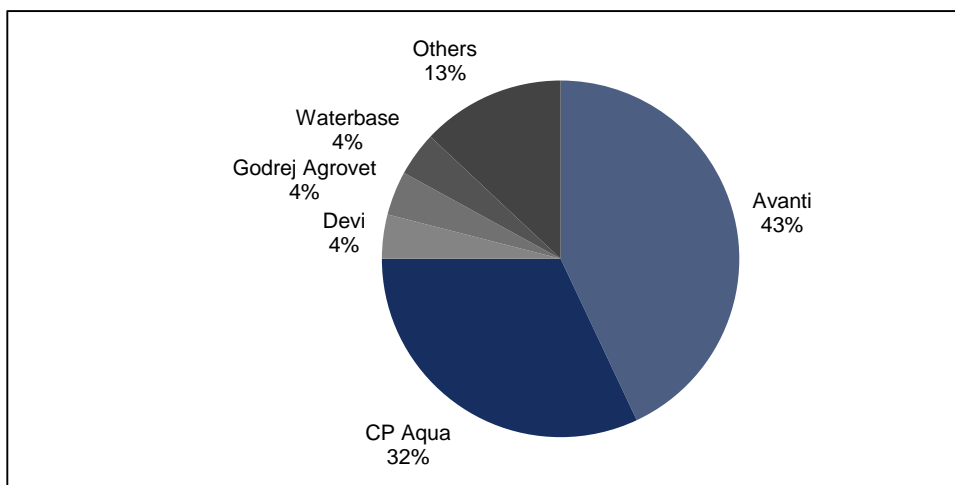


Source: Company data, I-Sec research

Market shares in feed market

Avanti is the undisputed market leader in India's shrimp feed industry with a market share of ~43%. The company benefits from early mover advantage as well as multiple moats such as strong brands, distribution network, multiple manufacturing units and sub-segmentation strategy. The other major player is C.P. Aqua with ~32% market share. Others are Devi Seafoods, Godrej Agrovet and The Waterbase Ltd., which have market shares of ~4% each.

Chart 25: Avanti is market leader in India's shrimp feed industry



Source: Company data, I-Sec research

Rising capacity in shrimp production

Many shrimp export players in India have indicated their plans to expand capacity in the shrimp feed industry. The Waterbase Ltd. plans to expand capacity aggressively whereas Devi Seafoods has set up production capacity of 125,000mtpa in just three years of operations. Sandhya Marine has also indicated plans to roll out new shrimp feed manufacturing capacity of 33,600mtpa.

The excess capacity in the industry may impact pricing power of all the players and hurt margins in the medium term. However, we believe, initially unorganised players and smaller organised players with market shares of just 1-2% will lose out to large organised players such as Avanti.

Established moats in shrimp feed business

Avanti has created multiple moats in the shrimp feed business, which is protecting its market share. We note the major moats of the company include strong brands, distribution network, sub-segmentation strategy as well as multiple manufacturing units of its own. Its premium brand image enables the company to charge a premium over peers.

Brands: The company has four brands in the shrimp feed business, viz. *Profeed*, *Titan*, *Mannamei* and *Champ*. *Profeed* brand operates at the premium end of the market whereas *Mannamei* brand is for value-for-money consumers.

Table 3: Brand-wise positioning of Avanti

Product	Positioning
<i>Profeed</i>	Premium positioning
<i>Titan</i>	Mid-end of the market
<i>Champ</i>	Mid-end of the market
<i>Mannamei</i>	Value for money

Source: Company data, I-Sec research

Table 4: Premium pricing compared to peers

Product	Price (Rs/kg)
Avanti Feeds	65.0
Devi Seafoods	63.0
The Waterbase	62.0

Source: Company data, I-Sec research

Distribution network: Avanti has established strong distribution networks in Andhra Pradesh, Tamil Nadu, Odisha and Gujarat. We believe, for any new player it will take years to develop a comparable network. Avanti also engages in multiple farmer education programs through its distribution network.

Multiple manufacturing units in shrimp feed: Shrimp feed is 'low-value and high-volume' product. Hence, any company needs multiple manufacturing units in order to reduce the freight costs. As Avanti has already set up five manufacturing units, we expect its freight costs to be significantly lower than other players.

Table 5: Manufacturing units of Avanti

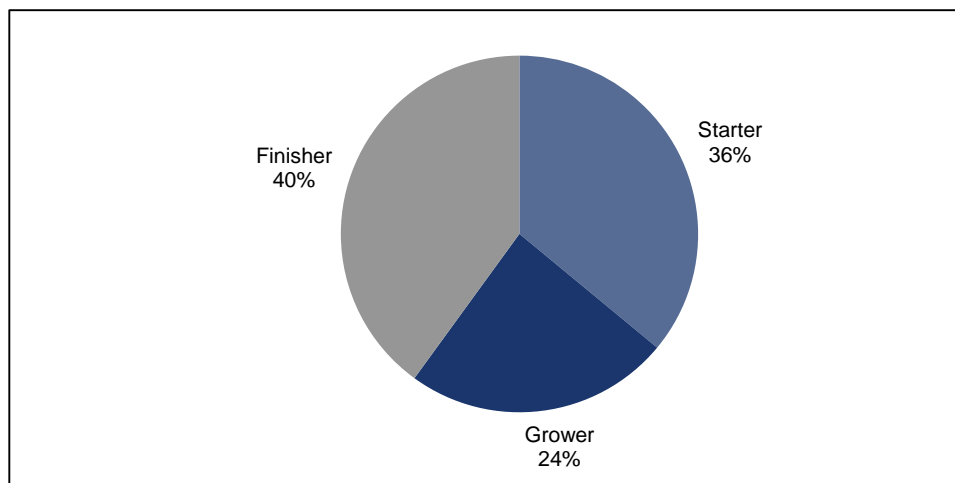
Plant	Location
Shrimp feed plant 1	Kovvur, Andhra Pradesh
Shrimp feed plant 2	Kovvur, Andhra Pradesh
Shrimp feed plant 3	D.No. 15-11-24, Kovvur, Andhra Pradesh
Shrimp feed plant 4	Bandapuram, Devarapally Mandal
Shrimp feed plant 5	Valsad, Gujarat
Wheat flour plant	Kovvur, Andhra Pradesh

Source: Company data, I-Sec research

To sell seeds to strengthen relation with farmers: The company has also entered the seed business and will be cultivating shrimps (for seeds) in its own hatcheries. Thus the company will be able to strengthen its relationships with the farmers as it will be able to sell seeds to the farmers.

Sub-segmentation strategy: Avanti has rolled out all three types of shrimp feeds, i.e. 1) starter feed, 2) grower feed, and 3) finisher feed. This allows the company to create multiple smaller sub-segments and introduce products therein. It also helps to leverage branding, promotions and pricing actions to gain market shares from peers as well as improve margins.

Chart 26: Avanti has strong presence in all types of shrimp feed



Source: Company data, I-Sec research

Entry in nursery feed: The company is investing in educating farmers about a new concept of nursery feed. After getting shrimp seeds from hatcheries, these seeds are kept directly in ponds for cultivation. However, if they are kept in small ponds (nursery ponds) for ~10 days and given nursery feed, the survival rates are higher. Avanti has launched nursery feed in Gujarat and plans to launch the same in Andhra Pradesh as well as other states.

Key raw materials in shrimp feed production

Shrimp feed is manufactured using three major raw materials i.e. sardine fish, soyabean and wheat. Sardine, a sea caught fish, is dried and powdered before using in shrimp feed. The indicative composition of sardine fish, soyabean and wheat is 36:32:32. Some proteins and vitamins are also added to shrimp feed. However, the composition changes according to brand, type of shrimp feed as well as manufacturer.

Sardine fish prices declined from Rs130/kg in Q1FY18 to Rs70/kg in Q3FY18, which boosted the margins of all shrimp feed manufacturers. However, increase in sardine fish prices from Rs70/kg in Q3FY18 to Rs100/kg now is expected to shrink margins for shrimp feed manufacturers in FY19.

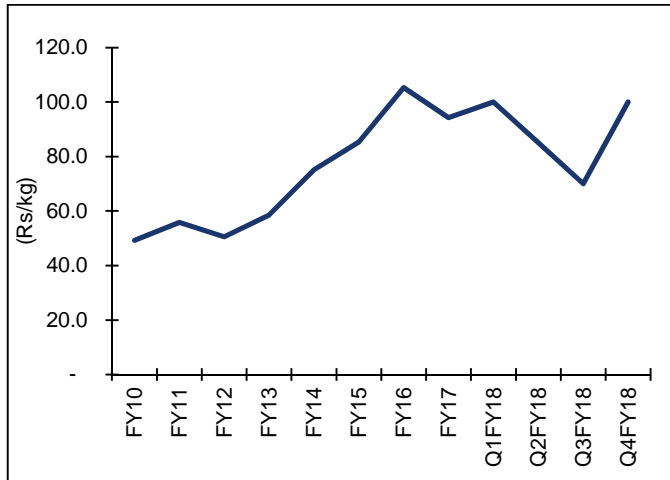
Table 6: Indicative composition of shrimp feed cost

Particulars	Indexed price
Shrimp feed price	100
Fish feed	44
Soya	20
Wheat	10
Packaging material & other raw materials	2
Gross profit	24

Source: Company data, I-Sec research

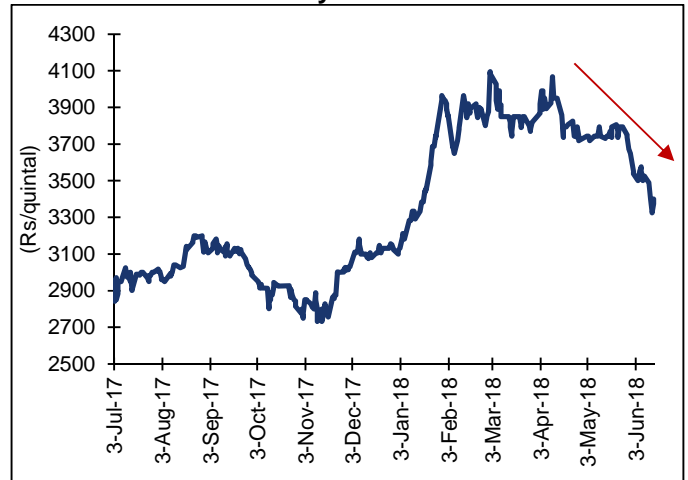
Chart 27: Pricing trends in major raw materials for shrimp feed

Fish meal



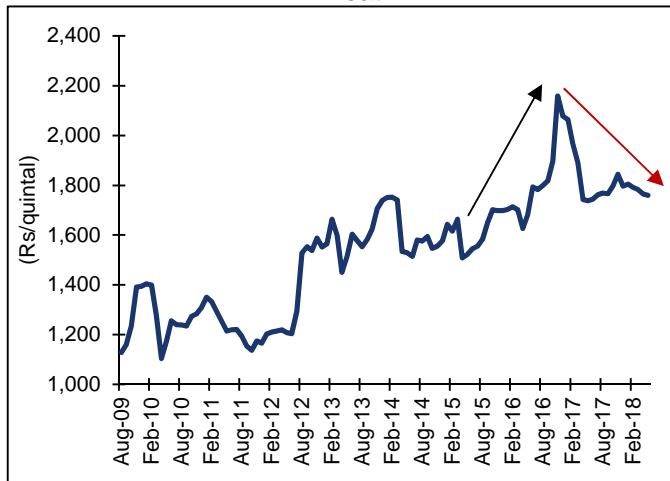
Source: Company data, I-Sec research

Soyabean



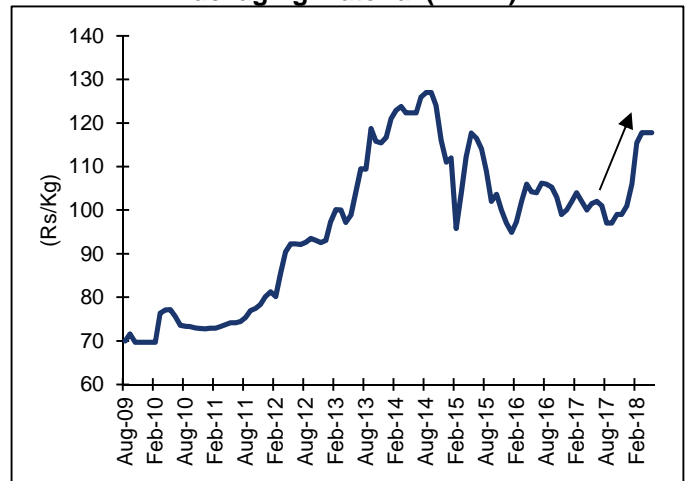
Source: Company data, I-Sec research

Wheat



Source: Company data, I-Sec research

Packaging material (HDPE)



Source: Company data, I-Sec research

What if shrimp prices decline?

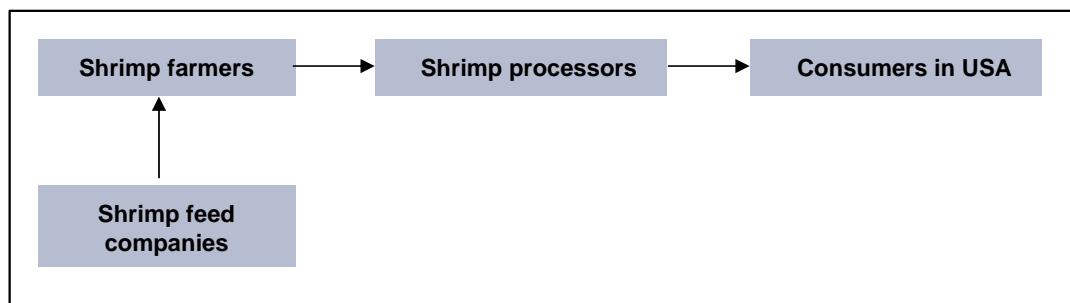
The shrimp value chain

In the shrimp value chain, there are four categories of players:

- Shrimp farmers
- Shrimp feed manufacturers
- Shrimp processors
- Consumers in the USA

In the above value chain, we note the pricing power is highest with consumers in the US. The shrimp processors just purchase and sell the shrimps, hence earn the processing charges. They are relatively less impacted by any volatility in shrimp prices. Shrimp farmers are unorganised and more vulnerable to decline in shrimp feed prices. Shrimp feed manufacturers may get hurt if the incomes of shrimp farmers reduce.

Chart 28: Shrimp value chain



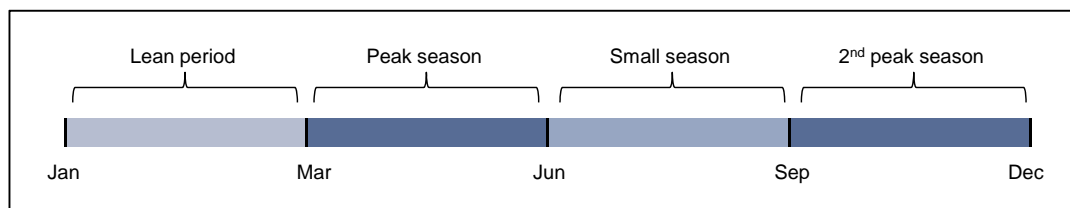
Source: Company data, I-Sec research

Shrimp cultivation cycle

There are 2 major shrimp cultivation seasons in India. The biggest season is from March to June and second biggest season is from September to December. Some farmers also cultivate shrimps in July to September period but the productivity is lower. December to March is the lean period in any given year.

Thus depending on the shrimp cultivation cycle, the shrimp prices move up and down during any financial year.

Chart 29: Shrimp cultivation cycle in India



Source: Company data, I-Sec research

Decline in shrimp prices can be tackled in two ways

We note that decline in shrimp prices impact both the business segments of Avanti. The impact can be noted down as follows

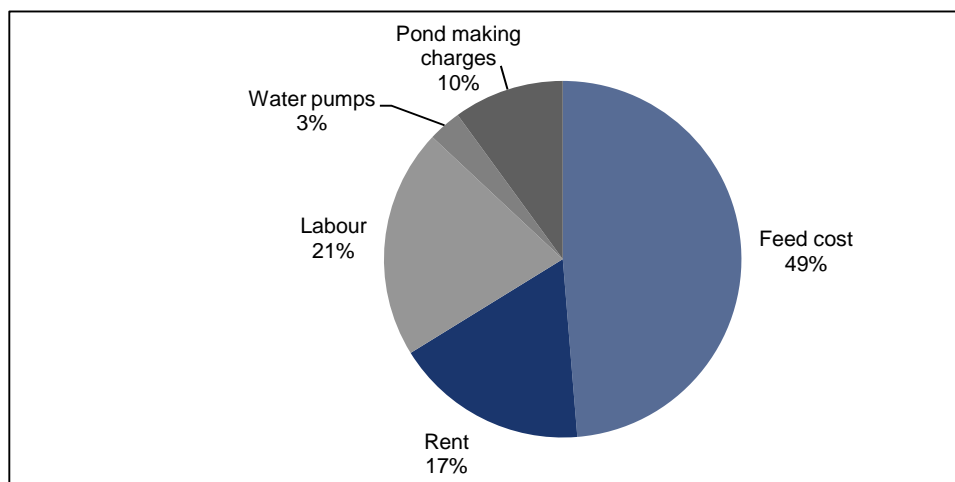
- Decline in global shrimp prices
- Decline in local (India) shrimp prices

Impact on shrimp feed market in both above cases

Domestic shrimp prices may decline due to: 1) over-production in any given year, and 2) decline in global shrimp prices, hence, lower prices offered by shrimp processors to the shrimp farmers in India.

In both the above situations, farmers would cut down on costs such as labour, feed and rent. Farmers may shift to some of the lower-priced shrimp feed products and/or may use feeds from the unorganised sector. This would hurt Avanti's shrimp feed segment.

Chart 30: Major costs incurred by shrimp farmers



Source: Company data, I-Sec research

Margins of shrimp feed manufacturers in case of lower shrimp prices

In the shrimp export business, the impact of decline in shrimp prices will be as follows.

Shrimp prices decline globally: If shrimp prices decline globally, the Indian shrimp exporters will offer lower prices to the shrimp farmers in India. Thus they will try to maintain gross margins irrespective of change in global shrimp prices. Though shrimp prices have been volatile over the past 5-6 years, the shrimp processing companies have maintained their gross margins.

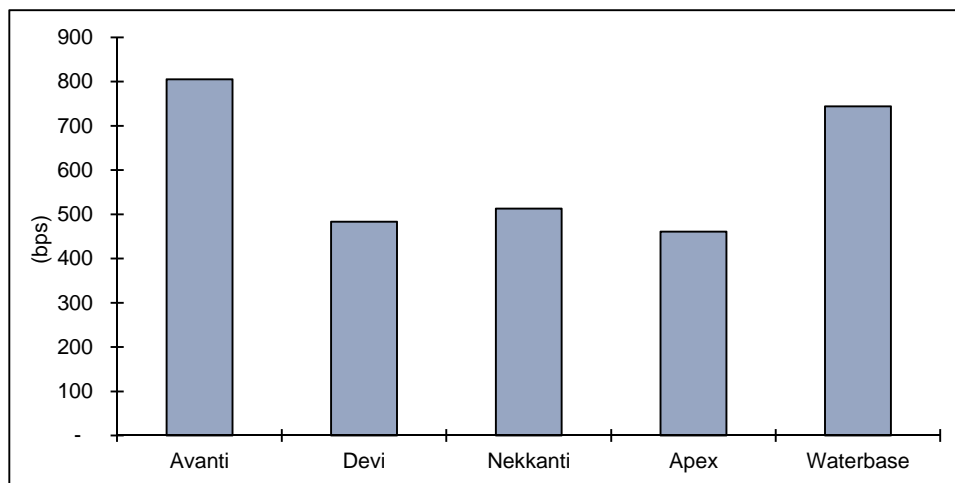
Table 7: Gross margins of shrimp processing companies

%	FY15	FY16	FY17
Avanti	23.0	24.2	24.2
Devi	24.1	25.5	20.1
Nekkanti	23.9	19.9	24.2
Apex	20.7	25.3	23.9
The Waterbase	28.1	26.6	25.8

Source: Company data, I-Sec research

Shrimp prices reduce in India: If the shrimp prices decline in India but global shrimp prices remains stable, it will result in margin expansion for shrimp processing companies. Such a situation was observed in FY18 when Indian shrimp prices declined, but the global shrimp prices remained stable, resulting in higher margins for Indian shrimp exporters.

Chart 31: Improvement in EBITDA margins in FY18* with lower shrimp prices



Source: Company data, I-Sec research *FY18 over FY17 (9MFY18 for Devi and Nekkanti)

Farmers' profitability may get impacted in case of fall in shrimp prices

In the entire value chain comprising farmers, shrimp feed companies, shrimp processing companies, and consumers in the US, the farmers make maximum profitability. We believe the farmers are generating profit of ~Rs200,000 per acre. In the event of decline in shrimp prices, we expect the farmers (weakest link in value chain) to see erosion in their profitability.

We believe, in the case of rice farming, the farmers generate profit of <Rs75,000 per acre. Hence, a small decline in shrimp prices will not reduce attractiveness of shrimp farming, and output will continue to grow at healthy rates.

Table 8: Indicative revenue model of any shrimp farm in India

Area - (acres)	2.5
Shrimp Sales (5 MT @ Rs300,000mn/MT)	1,500,000
Feed cost @ 7.5 MT (FCR =1.5)	487,000
Rent (Rs70,000 per acre)	175,000
Labour (2 employees)	208,000
Water pumps & other charges	30,000
Pond making charges	100,000
Profit (2.5 acres)	500,000
Feed Conversion Ratio (FCR) = 1.5	

Source: Company data, I-Sec research

Reduction in shrimp count to improve profitability

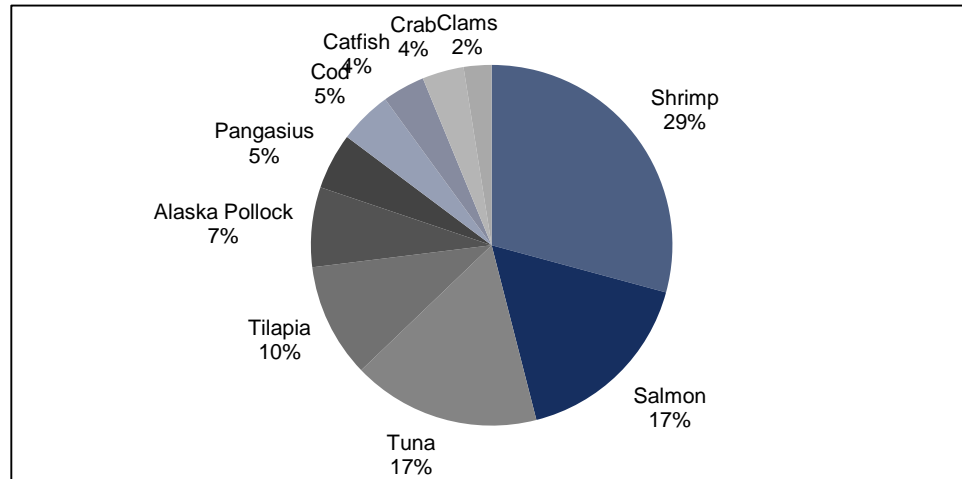
At standard prices of Rs280 for 100 shrimp count, the farmers cultivate 20-25 shrimps in 1 square meter. If the shrimp prices decline, the farmers has choice to 1) increase the shrimp count per square meter to increase revenues or 2) they can reduce the shrimp count per square meter to reduce costs. We believe depending on demand, supply of shrimps in market, reduction in shrimp prices and inflation in costs, the farmers can arrive at optimum cultivation per square meter.

The shrimp processing and feed companies also help the farmers to arrive at the equilibrium level of cultivation.

Shrimp consumption to move up in the US with fall in prices

We believe decline in shrimp prices will improve affordability of shrimp against other seafood as well as other meat products; hence improve volume growth for the shrimp processing companies. As of now, per capita consumption of shrimp in the US is less than 10kg per annum and decline in shrimp prices may help move it up, further gaining share from other seafood.

Chart 32: Per capita consumption of seafood products in the US



Source: Company data, I-Sec research

Peer group comparison

Table 9: Revenues and CAGR

Rsmn	FY15	FY16	FY17	9MFY18/FY18
Avanti	17,763	20,183	27,327	33,929
Devi	9,226	9,877	16,119	14,539*
Nekkanti	6,861	7,742	8,302	10,748*
Apex	5,994	6,035	6,991	9,986
The Waterbase	2,776	2,998	3,216	3,427

Source: Company data, I-Sec research *9MFY18

Table 10: Revenue breakup (FY18/9MFY18)

%	Shrimp	Shrimp feed
Avanti	17.1	82.8
Devi*	80.5	19.4
Nekkanti*	100.0	0.0
Apex	100.0	0.0
The Waterbase	0.0	100.0

Source: Company data, I-Sec research *9MFY18

Table 11: Gross margins

%	FY15	FY16	FY17	9MFY18/FY18
Avanti	23.0	24.2	24.2	29.0
Devi	24.1	25.5	20.1	25.5*
Nekkanti	23.9	19.9	24.2	28.5*
Apex	20.7	25.3	23.9	29.6
The Waterbase	28.1	26.6	25.8	36.5

Source: Company data, I-Sec research *9MFY18

Table 12: EBITDA margins

%	FY15	FY16	FY17	9MFY18/FY18
Avanti	10.2	11.4	12.1	20.1
Devi	12.5	12.4	10.7	15.5*
Nekkanti	11.3	7.1	10.6	15.8*
Apex	5.5	6.7	6.4	11.0
The Waterbase	11.2	2.9	9.4	16.8

Source: Company data, I-Sec research *9MFY18

Table 13: Net working capital days

Days	FY15	FY16	FY17	FY18
Avanti	25	29	16	29
Devi	93	129	104	
Nekkanti	54	38	80	
Apex	57	55	62	66
The Waterbase	73	73	74	85

Source: Company data, I-Sec research

Table 14: RoCE

%	FY15	FY16	FY17	FY18
Avanti	60.3	56.7	52.0	66.6
Devi	26.7	23.0	24.9	
Nekkanti	47.3	27.7	26.9	
Apex	24.8	23.6	21.3	34.3
The Waterbase	27.5	3.5	13.6	28.1

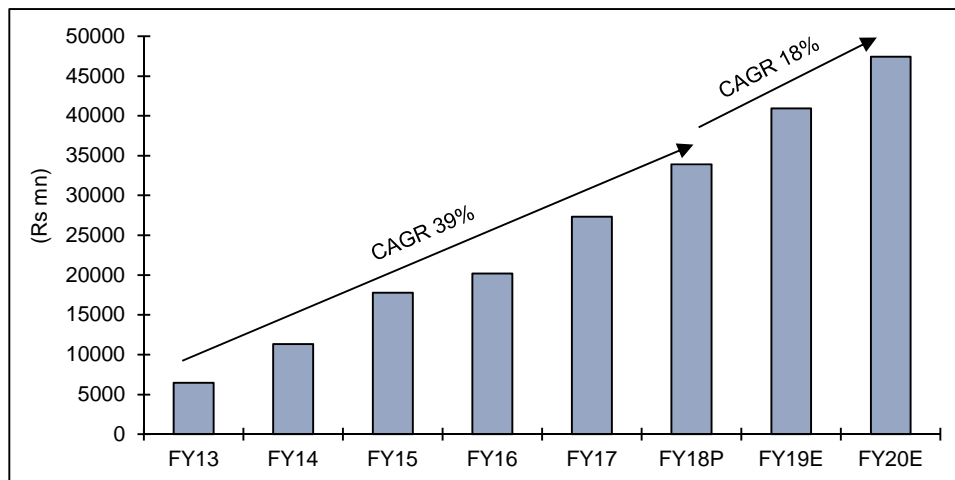
Source: Company data, I-Sec research

Financial performance

Expect revenue CAGR of 18.3% over FY18-FY20E

Avanti Feeds (Avanti) reported revenue CAGR of 39.2% over FY13-FY18. The shrimp feed division reported revenue CAGR of 41.1%, volume CAGR 33.1% and realisation CAGR of 6.1% over the same timeframe. Shrimp processing revenues grew at a CAGR of 32.2% over FY13-FY18. We expect the company to report revenue CAGR of 18.3% over FY18-FY20E. Shrimp feed segment and shrimp processing segment are expected to grow at CAGRs of 13% and 40.8% respectively over FY18-FY20E.

Chart 33: Healthy revenue growth ahead

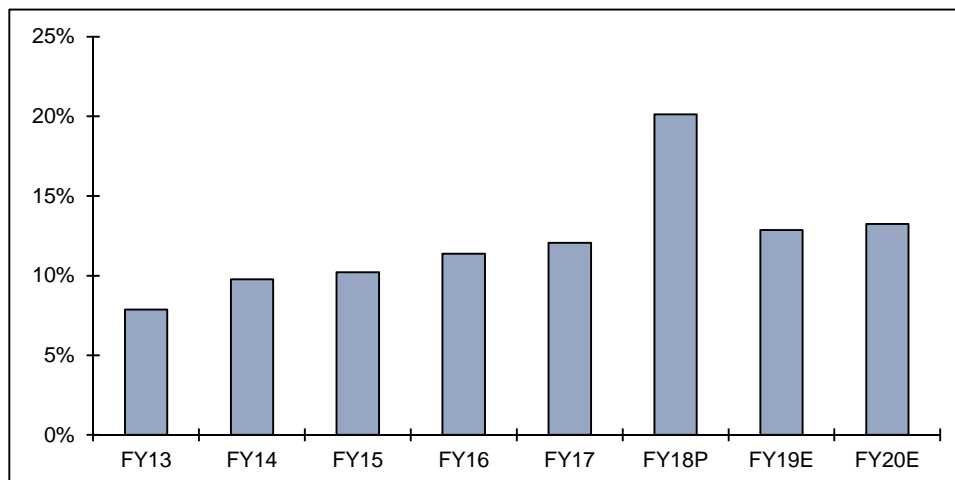


Source: Company data, I-Sec research

EBITDA margin to contract due to rise in commodity prices

EBITDA margin moved up from 7.9% in FY13 to 20.1% in FY18. Steady-state EBITDA margin in shrimp feed is in the range of 12-14% and the EBITDA margin in shrimp processing is 11%-14%. However, with the steep fall in commodity prices in FY18, the EBITDA margin moved up to 20.1%. We expect it to correct in the coming quarters with rising prices of sardine fish. Also, higher revenue share of the shrimp processing segment will result in lower EBITDA margin. We expect the company to report EBITDA margin of 13.2% in FY20E compared to 20.1% in FY18.

Chart 34: Expect margins to decline in FY19 but stabilizing ~13% levels

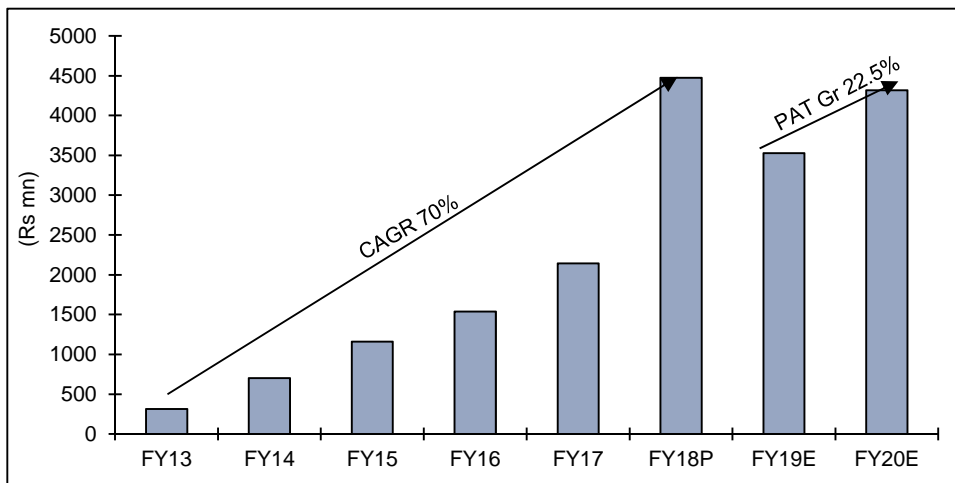


Source: Company data, I-Sec research

Net profit growth to resume in FY20E after hitting breaks in FY19

Avanti registered net profit CAGR of 70% over FY13-FY18. We note healthy revenue growth, better margins as well as repayment of debt and lower interest cost helped it report strong earnings CAGR. Going forward, we expect decline in margin in FY19E to hurt earnings growth but FY20E PAT growth is expected to be 22.5% up over FY19E earnings.

Chart 35: Net profit to expand in FY20 after decline in FY19

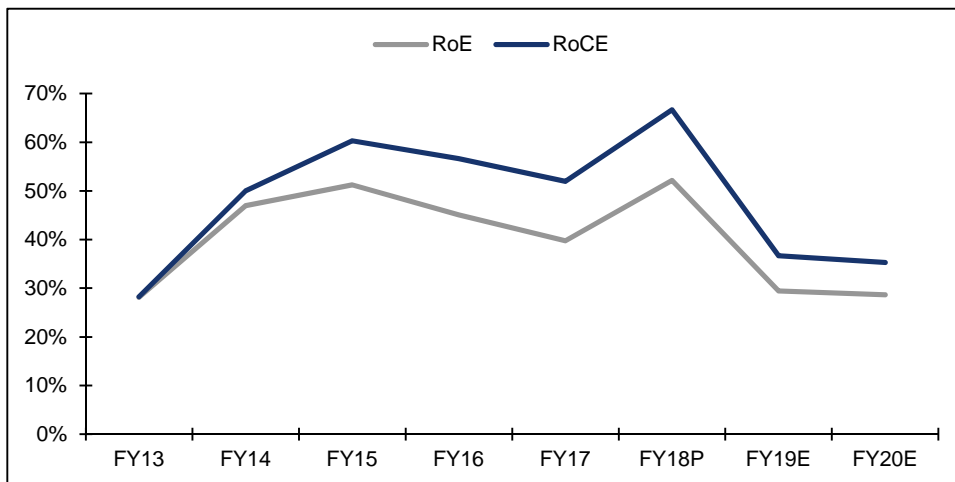


Source: Company data, I-Sec research

Return ratios > Cost of Capital

The company has been maintaining strong return ratios over FY13-FY18 due to limited capex and negligible working capital. Also, improvement in margin has also helped generate strong return ratios. We expect the company to report return ratios in excess of 35% over FY19E and FY20E.

Chart 36: Strong return ratios

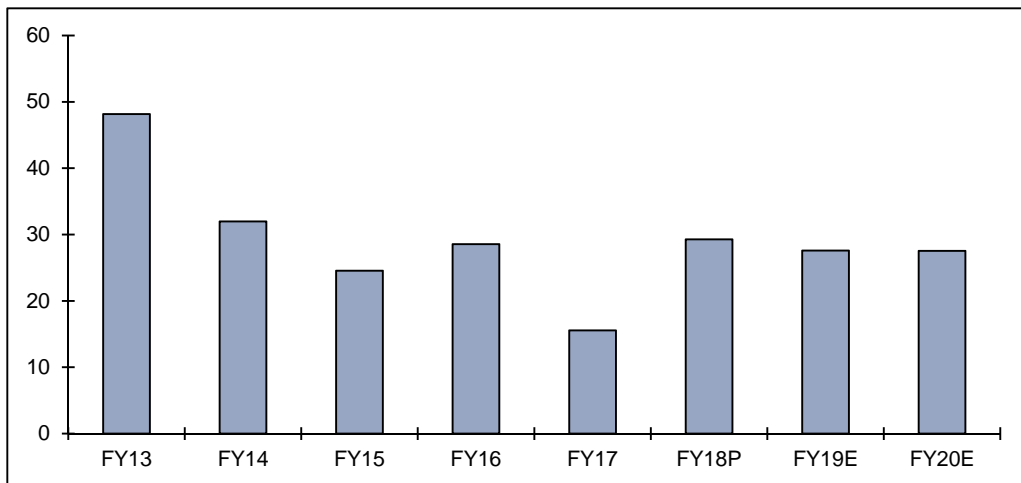


Source: Company data, I-Sec research

Negligible investment in working capital

Avanti's shrimp feed business does not require investments in working capital. However, the shrimp processing business requires investments in debtors as well as inventory. Overall, the company's business operates at net working capital of one month (~30 days).

Chart 37: Working capital investment of ~30 days

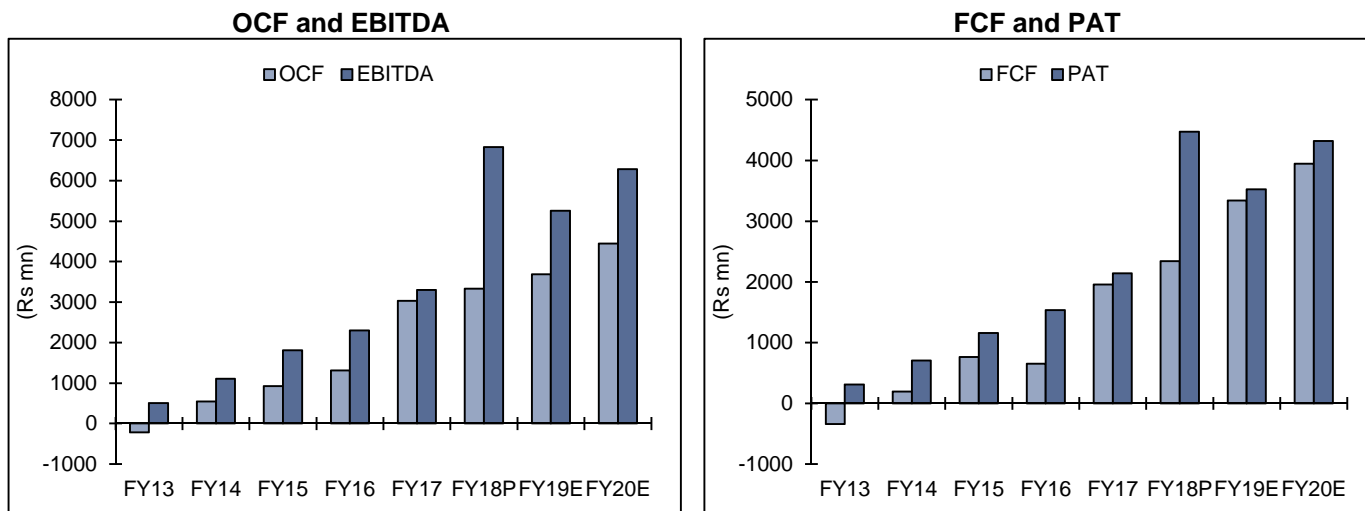


Source: Company data, I-Sec research

Robust FCF generation

The company has a healthy cash generation record with average OCF/EBITDA of 66% and FCF/PAT of 66% over FY13-FY18. As we do not expect any major capex and any material increase in working capital, the cash generation is expected to remain robust over FY18-FY20E.

Chart 38: Robust cashflow generation



Source: Company data, I-Sec research

Key assumptions

Table 15: Key assumptions

(Rs mn)

	FY16	FY17	FY18P	FY19E	FY20E
Segmental revenues					
Shrimp feed	17,294	23,457	28,101	30,911	35,903
Shrimp processing	2,635	3,547	5,512	9,646	11,092
Net revenues	20,183	27,327	33,929	40,935	47,448
<i>Growth (%)</i>	13.6	35.4	24.2	20.6	15.9
Gross profit	4,894	6,615	9,832	8,884	10,438
<i>Gross margin (%)</i>	24.2	24.2	29.0	21.7	22.0
EBITDA	2,298	3,297	6,826	5,261	6,286
<i>EBITDA margin (%)</i>	11.4	12.1	20.1	12.9	13.2
PBT	2,343	3,351	7,042	5,603	6,858
<i>PBT margin (%)</i>	11.6	12.3	20.8	13.7	14.5
<i>Tax rate (%)</i>	33.8	32.4	33.8	33.0	33.0
PAT	1,536	2,143	4,473	3,526	4,318
<i>PAT margin (%)</i>	7.7	8.3	13.7	9.2	9.7
<i>PAT growth (%)</i>	32.5	39.5	108.7	(21.2)	22.5
Capex	(663)	(1,071)	(989)	(350)	(500)
Net working capital days	29	16	29	28	28
Operating cashflow	1,312	3,030	3,330	3,688	4,446
Free cashflow	650	1,959	2,340	3,338	3,946
<i>OCF/EBITDA (%)</i>	57.1	91.9	48.8	70.1	70.7

Source: Company data, I-Sec research

Valuation

We have valued Avanti Feeds (Avanti) by the DCF methodology. Our DCF valuation indicates value per share of Rs1,901. The implied P/E multiple at our target price and FY20E EPS works out to 20x.

DCF-based valuation

Valuing Avanti feeds on the DCF methodology involves three stages.

- **Stage 1 (FY18-FY20E):** During this period, we expect the company to grow its revenues at CAGR of 18.3%. We also expect RoCE to remain above 30% over FY18-FY20E.
- **Stage 2 (FY20E-FY30E):** During this period, we expect the company to post revenue CAGR of 15% and PAT CAGR of 15.6% till FY30E.
- **Stage 3 (FY30E onwards):** We assume a perpetual growth rate of 3%.

To arrive at the cost of equity of 13.3%, we have assumed a risk-free rate of 8% and market return of 14%. Based on these assumptions, we arrive at a valuation of Rs1,901/share.

Table 16: DCF valuation

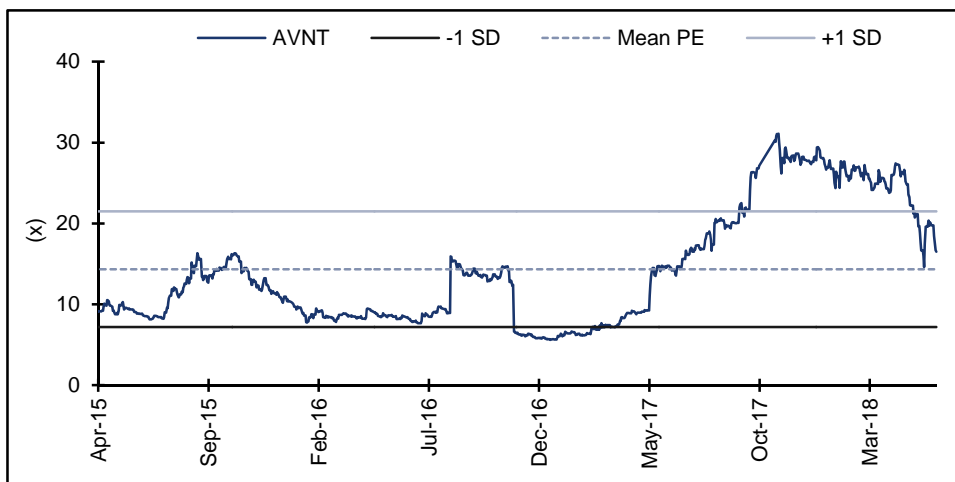
Particulars	Amt (Rs)
Risk-free rate	8.0%
Cost of equity	13.3%
Terminal growth rate	3.0%
Discounted interim cash flows	43,546
Discounted terminal value	42,774
Total equity value	86,319
Number of shares (m)	45
Value per share (Rs)	1,901

Source: Company, I-Sec research

P/E-based valuation

Historically, the stock has traded at a 1-year forward P/E of 14.3x. Comparing the historical and estimated future return ratios and growth rates, we expect the stock to trade at a P/E multiple of 20x near-mean P/E + 1 SD on FY20E EPS.

Chart 39: Mean P/E(x) and standard deviation



Source: Company data, I-Sec research

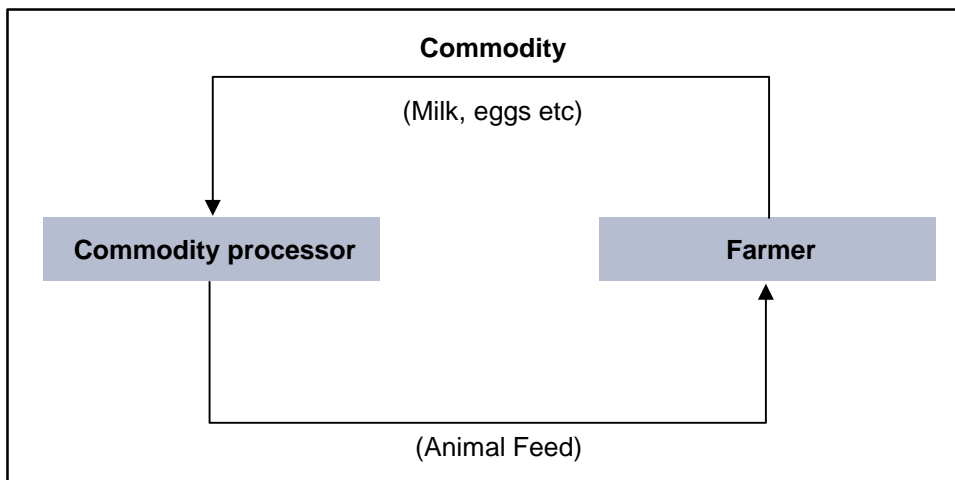
Key risks

Steep increase in competitive pressures and input prices: Steep increase in competitive pressures, material increase in production capacities by peers in a short timeframe and/or any sudden increase in commodity prices may hurt the company’s earnings.

Risk of disease to shrimps: Any disease to the shrimps may significantly hurt the company’s performance. It may adversely impact the shrimp processing business as customers may not purchase the shrimps.

Risk of Integration: The entire animal feed industry is moving toward integration. The commodity processors (dairy companies such as Hatsun, meat companies such as Venkys) purchase the commodity from farmers. The farmers purchase the animal feed (cattle feed, poultry feed) from these commodity processors. Thus there is a two-way relationship between commodity processors and farmers. Standalone feed manufacturers suffer whenever the industry moves towards integration. If shrimp industry also moves toward integration, Avanti’s shrimp feed business may be hurt in the medium to long run.

Chart 40: Integration model in dairy and poultry industry



Source: Company data, I-Sec research

About the promoters and management team

Mr. Alluri Indra Kumar, Chairman and Managing Director of the company, is a chemical engineer by profession. He is director of Avanti Feeds since 1992 and managing director since 2002. He is credited with creating the company's strong business model. His achievements for the company include: 1) strong product development through strong investments, 2) creation of brands and distribution networks, and 3) getting Thai Union on the company's board. He has also built the company's strong expertise in import and export businesses and has acquired new customers in the US and European markets. .

Mr. C. Ramchandra Rao, Joint Managing Director and Company Secretary, is a chartered accountant, company secretary and law graduate by education. He has strong experience of more than 25 years in the shrimp and fishery industry. As a key member of Avanti's strategy team, he focusses on strategic partnerships and growth initiatives in addition to playing a critical role in the company's finance function.

Mr. N. Chidambar, General Manager, is a graduate in fisheries science. He has 18 years of experience in the seafood industry and has been with Avanti for the past six years.

Mr Paresh Shetty, General Manager, looks after marketing aspect of the business. He looks at the entire supply chain and appointing dealers and tackling issues in distribution. He is working in Avanti for past six years.

Mr. P.V. Rajsekhar, Deputy General Manager, is a commerce graduate and chartered accountant. He has 15 years of experience in taxation, management and auditing. Prior to joining Avanti, he has worked in Bharti Airtel.

Mr. S. Mohanty, Deputy General Manager, is a postgraduate in fisheries and has 17 years of experience in the domain. He focusses on distribution, supply chain management and retailing of the shrimp feed division.

Financials

Table 17: Profit & Loss statement

(Rs mn, year ending March 31)

	FY15	FY16	FY17	FY18P	FY19E	FY20E
Gross Sales	17,763	20,183	27,327	33,929	40,935	47,448
Less: Excise Duty	-	-	-	-	-	-
Net Sales	17,763	20,183	27,327	33,929	40,935	47,448
Growth (%)		13.6	35.4	24.2	20.6	15.9
Expenditure						
Cost of Goods Sold	13,686	15,289	20,712	24,097	32,051	37,010
Staff Cost	476	581	734	1,109	1,351	1,566
Manufacturing expenses	628	603	790	544	655	759
Selling & distribution expenses	914	1,081	1,413	1,000	1,187	1,329
Admin & general expenses	142	218	254	200	246	285
Freight outwards	103	113	128	153	184	214
EBITDA	1,814	2,298	3,297	6,826	5,261	6,286
EBITDA margin (%)	10.2	11.4	12.1	20.1	12.9	13.2
Depreciation	88	102	137	238	295	326
EBIT	1,726	2,196	3,160	6,589	4,966	5,960
Interest Expense & Bank Exps	18	18	27	30	30	30
Other Income	90	166	218	482	668	928
Profit Before Tax	1,798	2,343	3,351	7,042	5,603	6,858
Income Taxes	633	792	1,084	2,380	1,849	2,263
Income tax rate	35.2	33.8	32.4	33.8	33.0	33.0
Profit After Tax	1,166	1,551	2,267	4,661	3,754	4,595
Growth (%)		33.0	46.2	105.6	(19.5)	22.4
Share of Profit From Associates	7	15	13	(11)	(11)	(11)
Pref. Dividends/Minority Interest	-	-	111	200	240	288
Profit Before X/O	1,159	1,536	2,143	4,473	3,526	4,318
Extraordinary Items	-	39	1	(20)	-	-
Profit for Shareholders	1,159	1,575	2,143	4,452	3,526	4,318

Source: Company data, I-Sec research

Table 18: Balance sheet analysis*(Rs mn, year ending March 31)*

	FY15	FY16	FY17	FY18P	FY19E	FY20E
Sources of Funds						
Share Capital	91	91	91	91	91	91
Reserves and Surplus	2,562	4,137	6,314	10,224	13,006	16,421
Deferred Tax Liability	60	47	100	261	261	261
Net Worth	2,713	4,275	6,505	10,576	13,358	16,773
Net Worth Net of Rev. Reserve	2,713	4,275	6,505	10,576	13,358	16,773
Minority Interest	-	-	987	1,184	1,423	1,711
Secured Loans	548	107	194	55	55	55
Unsecured Loans	68	41	49	222	222	222
Total Loans	615	148	243	277	277	277
Total	3,328	4,423	7,735	12,037	15,058	18,761
Application of Funds						
Fixed Assets						
Gross Block	1,365	1,609	2,281	4,035	4,405	4,905
Less: Depreciation	470	569	676	914	1,209	1,535
Net Block	896	1,040	1,605	3,121	3,196	3,370
Capital WIP	-	416	785	20	-	-
Gross Block-Brand value	1,365	1,609	2,281	4,035	4,405	4,905
Goodwill	-	-	-	-	-	-
Liquid Investments	765	-	3,256	5,532	8,032	11,132
Other Investments	412	663	473	497	497	497
Current Assets	2,733	4,107	4,446	6,092	7,222	8,269
Inventories	2,220	2,855	3,557	5,248	6,140	7,117
Sundry Debtors	336	350	235	500	614	712
Cash & Bank Balances	62	726	451	144	237	180
Loans & Advances	116	176	203	200	230	260
Current Liabilities	1,477	1,803	2,829	3,226	3,889	4,508
Liabilities	1,154	1,707	2,781	2,865	3,479	4,033
Provisions	323	97	48	360	409	474
Net Current Assets	1,256	2,304	1,617	2,866	3,333	3,762
Total	3,328	4,423	7,735	12,037	15,058	18,761

Source: Company data, I-Sec research

Table 19: Cashflow statement*(Rs mn, year ending March 31)*

	FY15	FY16	FY17	FY18P	FY19E	FY20E
OCF before W/C changes	1,261	1,700	2,356	4,887	4,061	4,932
W/c Changes	(337)	(387)	674	(1,557)	(373)	(486)
OCF After W/C Changes	924	1,312	3,030	3,330	3,688	4,446
Cashflow from Investing	-	-	-	-	-	-
Capital Expenditure	(164)	(665)	(1,079)	(989)	(350)	(500)
Disposal	1	2	8	-	-	-
Investments	(686)	789	(1,959)	(2,300)	(2,500)	(3,100)
Acquisitions	-	-	-	-	-	-
Net Cash used in Investing	(849)	126	(3,030)	(3,290)	(2,850)	(3,600)
Cashflow from Financing	-	-	-	-	-	-
Changes in Share Capital	-	-	-	-	-	-
Changes in Loans	23	(479)	87	34	-	-
Dividends	(159)	(301)	(383)	(382)	(744)	(903)
Net Cash used in Financing	(137)	(780)	(295)	(348)	(744)	(903)
Extraordinary Items	-	-	-	-	-	-
Changes in Cash & Equivalents	(61)	659	(295)	(308)	94	(57)
Opening Cash & Equivalents	104	43	701	451	144	237
Closing Cash & Equivalents	43	701	407	144	237	180
Free Cashflow	761	650	1,959	2,340	3,338	3,946

Source: Company data, I-Sec research

Table 20: Ratio analysis*(year ending March 31)*

	FY15	FY16	FY17	FY18P	FY19E	FY20E
Profitability Ratios						
Gross margin	23.0	24.2	24.2	29.0	21.7	22.0
EBITDA Margin	10.2	11.4	12.1	20.1	12.9	13.2
EBITDA+Other Income Margin	10.7	12.2	12.9	21.5	14.5	15.2
EBIT Margin	9.7	10.9	11.6	19.4	12.1	12.6
PBT Margin	10.1	11.6	12.3	20.8	13.7	14.5
PAT Margin	6.6	7.7	8.3	13.7	9.2	9.7
Income Tax Rate	35.2	33.8	32.4	33.8	33.0	33.0
Excise Duty Rate	-	-	-	-	-	-
RoE	51.3	45.1	39.8	52.1	29.5	28.7
RoCE	60.3	56.7	52.0	66.6	36.7	35.2
Major Costs as % of Net Sales						
Cost of Goods Sold	77.0	75.8	75.8	71.0	78.3	78.0
Staff Cost	2.7	2.9	2.7	3.3	3.3	3.3
Manufacturing expenses	3.5	3.0	2.9	1.6	1.6	1.6
Selling & distribution expenses	5.1	5.4	5.2	2.9	2.9	2.8
Admin & general expenses	0.8	1.1	0.9	0.6	0.6	0.6
Freight outwards	0.6	0.6	0.5	0.5	0.5	0.5
Per Share Data						
Earnings Per Share	25.5	33.8	47.2	98.5	77.6	95.1
Increase in %	64.6	32.5	39.5	108.7	(21.2)	22.5
Book Value per Share	59.7	94.1	143.2	232.9	294.1	369.3
Increase in %	49.9	57.6	52.2	62.6	26.3	25.6
Dividend Per Share	5.5	7.0	9.0	11.0	14.0	17.0
Increase in %	83.3	27.3	28.6	22.2	27.3	21.4
Turnover Ratios						
Debtors Turnover ratio	1.9	1.7	0.9	1.5	1.5	1.5
Current Liabilities Turnover Ratio	6.5	8.5	10.2	8.4	8.5	8.5
Inventory Turnover Ratio	12.5	14.1	13.0	15.5	15.0	15.0
Fixed Assets Turnover Ratio	5.0	7.2	8.7	9.3	7.8	7.1
Valuation Ratios						
Price Earnings	60.5	45.7	32.7	15.7	19.9	16.2
Price/Book Value	25.9	16.4	10.8	6.6	5.3	4.2
EV/Sales	3.7	3.3	2.4	1.9	1.6	1.4
EV/EBITDA	36.4	28.7	20.0	9.7	12.5	10.5
Dividend Yield	0.4	0.5	0.6	0.7	0.9	1.1
Other Ratios						
Net debt/Equity	(0.1)	(0.1)	(0.4)	(0.4)	(0.5)	(0.6)
FCF/EPS	65.3	41.9	86.4	50.2	88.9	85.9
OCF/Sales	5.2	6.5	11.1	9.8	9.0	9.4
Div Payout Ratio	21.5	20.7	19.1	11.2	18.0	17.9

Source: Company data, I-Sec research

Index of tables and charts

Tables

Table 1: Stable shrimp prices in the US improving affordability	6
Table 2: Key financials of Thai Union	12
Table 3: Brand-wise positioning of Avanti	16
Table 4: Premium pricing compared to peers	16
Table 5: Manufacturing units of Avanti	16
Table 6: Indicative composition of shrimp feed cost	17
Table 7: Gross margins of shrimp processing companies	20
Table 8: Indicative revenue model of any shrimp farm in India	21
Table 9: Revenues and CAGR	23
Table 10: Revenue breakup (FY18/9MFY18)	23
Table 11: Gross margins	23
Table 12: EBITDA margins	23
Table 13: Net working capital days	23
Table 14: RoCE	23
Table 15: Key assumptions	27
Table 16: DCF valuation	28
Table 17: Profit & Loss statement	31
Table 18: Balance sheet analysis	32
Table 19: Cashflow statement	32
Table 20: Ratio analysis	33

Charts

Chart 1: Revenue and EBIT breakup	3
Chart 2: Growing global seafood consumption	4
Chart 3: Rising penetration of aquaculture	4
Chart 4: Shrimp exports – Volume growth	5
Chart 5: Shrimp exports – Value growth	5
Chart 6: Rural wages per day are lower in India than in South-East Asia	5
Chart 7: Shrimp consumption growth in the US	7
Chart 8: Limited growth in shrimp production	7
Chart 9: ...leading to higher imports in the US	7
Chart 10: Declining shrimp production in Thailand	8
Chart 11: Thailand's share of exports to the US	8
Chart 12: ...declined significantly over 2012-16	8
Chart 13: India's share of exports growing across frozen and value-added shrimps	9
Chart 14: The US accounted for just ~37% of	10
Chart 15: ...India's shrimp exports in 2012 & 2016	10
Chart 16: Rising shrimp imports in China	10
Chart 17: Per capita global seafood consumption on the rise	11
Chart 18: Anti-dumping duty on shrimp importers in the US	11
Chart 19: Thai Union holds major stake in Avanti's business	12
Chart 20: Geographic revenue breakup of Thai Union	13
Chart 21: Organised sector dominates Indian shrimp feed industry	14
Chart 22: Shrimp feed market growth	14
Chart 23: Shrimp feed market growing at CAGR of 20.4% over FY13-FY18	15
Chart 24: Avanti has gained market share in a growing shrimp feed market	15
Chart 25: Avanti is market leader in India's shrimp feed industry	15
Chart 26: Avanti has strong presence in all types of shrimp feed	17
Chart 27: Pricing trends in major raw materials for shrimp feed	18
Chart 28: Shrimp value chain	19
Chart 29: Shrimp cultivation cycle in India	19
Chart 30: Major costs incurred by shrimp farmers	20
Chart 31: Improvement in EBITDA margins in FY18* with lower shrimp prices	21
Chart 32: Per capita consumption of seafood products in the US	22
Chart 33: Healthy revenue growth ahead	24
Chart 34: Expect margins to decline in FY19 but stabilizing ~13% levels	24
Chart 35: Net profit to expand in FY20 after decline in FY19	25
Chart 36: Strong return ratios	25
Chart 37: Working capital investment of ~30 days	26
Chart 38: Robust cashflow generation	26
Chart 39: Mean P/E(x) and standard deviation	29
Chart 40: Integration model in dairy and poultry industry	29

This report may be distributed in Singapore by ICICI Securities, Inc. (Singapore branch). Any recipients of this report in Singapore should contact ICICI Securities, Inc. (Singapore branch) in respect of any matters arising from, or in connection with, this report. The contact details of ICICI Securities, Inc. (Singapore branch) are as follows: Address: 10 Collyer Quay, #37-16 Ocean Financial Tower, Singapore - 049315, Tel: +65 6232 2451 and email: navneet_babbar@icicisecuritiesinc.com, Rishi_agrawal@icicisecuritiesinc.com.

"In case of eligible investors based in Japan, charges for brokerage services on execution of transactions do not in substance constitute charge for research reports and no charges are levied for providing research reports to such investors."

New I-Sec investment ratings (all ratings based on absolute return)

BUY: >15% return; ADD: 5% to 15% return; HOLD: Negative 5% to Positive 5% return; REDUCE: Negative 5% to Negative 15% return; SELL: < negative 15% return

ANALYST CERTIFICATION

We I, *Aniruddha Joshi, CA*; Research Analysts, authors and the names subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect our views about the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report. Analysts are not registered as research analysts by FINRA and are not associated persons of the ICICI Securities Inc.

Terms & conditions and other disclosures:

ICICI Securities Limited (ICICI Securities) is a full-service, integrated investment banking and is, *inter alia*, engaged in the business of stock brokering and distribution of financial products. ICICI Securities Limited is a SEBI registered Research Analyst with SEBI Registration Number – INH000000990. ICICI Securities is a wholly-owned subsidiary of ICICI Bank which is India's largest private sector bank and has its various subsidiaries engaged in businesses of housing finance, asset management, life insurance, general insurance, venture capital fund management, etc. ("associates"), the details in respect of which are available on www.icicibank.com.

ICICI Securities is one of the leading merchant bankers/ underwriters of securities and participate in virtually all securities trading markets in India. We and our associates might have investment banking and other business relationship with a significant percentage of companies covered by our Investment Research Department. ICICI Securities generally prohibits its analysts, persons reporting to analysts and their relatives from maintaining a financial interest in the securities or derivatives of any companies that the analysts cover.

The information and opinions in this report have been prepared by ICICI Securities and are subject to change without any notice. The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of ICICI Securities. While we would endeavour to update the information herein on a reasonable basis, ICICI Securities is under no obligation to update or keep the information current. Also, there may be regulatory, compliance or other reasons that may prevent ICICI Securities from doing so. Non-rated securities indicate that rating on a particular security has been suspended temporarily and such suspension is in compliance with applicable regulations and/or ICICI Securities policies, in circumstances where ICICI Securities might be acting in an advisory capacity to this company, or in certain other circumstances.

This report is based on information obtained from public sources and sources believed to be reliable, but no independent verification has been made nor is its accuracy or completeness guaranteed. This report and information herein is solely for informational purpose and shall not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. ICICI Securities will not treat recipients as customers by virtue of their receiving this report. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. The recipient should independently evaluate the investment risks. The value and return on investment may vary because of changes in interest rates, foreign exchange rates or any other reason. ICICI Securities accepts no liabilities whatsoever for any loss or damage of any kind arising out of the use of this report. Past performance is not necessarily a guide to future performance. Investors are advised to see Risk Disclosure Document to understand the risks associated before investing in the securities markets. Actual results may differ materially from those set forth in projections. Forward-looking statements are not predictions and may be subject to change without notice.

ICICI Securities or its associates might have managed or co-managed public offering of securities for the subject company or might have been mandated by the subject company for any other assignment in the past twelve months.

ICICI Securities or its associates might have received any compensation from the companies mentioned in the report during the period preceding twelve months from the date of this report for services in respect of managing or co-managing public offerings, corporate finance, investment banking or merchant banking, brokerage services or other advisory service in a merger or specific transaction.

ICICI Securities or its associates might have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the companies mentioned in the report in the past twelve months.

ICICI Securities encourages independence in research report preparation and strives to minimize conflict in preparation of research report. ICICI Securities or its analysts did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither ICICI Securities nor Research Analysts have any material conflict of interest at the time of publication of this report.

It is confirmed that *Aniruddha Joshi, CA*; Research Analysts of this report have not received any compensation from the companies mentioned in the report in the preceding twelve months.

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

ICICI Securities or its subsidiaries collectively or Research Analysts do not own 1% or more of the equity securities of the Company mentioned in the report as of the last day of the month preceding the publication of the research report.

Since associates of ICICI Securities are engaged in various financial service businesses, they might have financial interests or beneficial ownership in various companies including the subject company/companies mentioned in this report.

It is confirmed that *Aniruddha Joshi, CA*; Research Analysts do not serve as an officer, director or employee of the companies mentioned in the report.

ICICI Securities may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report.

Neither the Research Analysts nor ICICI Securities have been engaged in market making activity for the companies mentioned in the report.

We submit that no material disciplinary action has been taken on ICICI Securities by any Regulatory Authority impacting Equity Research Analysis activities.

This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject ICICI Securities and affiliates to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction.

This report has not been prepared by ICICI Securities, Inc. However, ICICI Securities, Inc. has reviewed the report and, in so far as it includes current or historical information, it is believed to be reliable, although its accuracy and completeness cannot be guaranteed.