

Qian Hu Corporation Limited

Evolving to Aquaculture for growth



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SINGAPORE | CONSUMER | SITE VISIT

10 September 2018

- Embarked on new aquaculture business with the objective of producing antibiotic-free sustainable edible fish
- Targeting aquaculture business to be many times bigger than ornamental fish
- Revenue contribution since 3Q17 from new aquaculture business has not been meaningful yet

What is the news?

Qian Hu Corporation Limited (Qian Hu) hosted a site visit for analysts. We visited Qian Hu's two new aquaculture farms in Wenchang, Hainan, China on Aug. 29, 2018. Farm 1, located in Yan Dun Wen Yuan village deals in finfish, while Farm 2, located 16 km away in Bao Shi village deals with shellfish.

Company Background

Qian Hu was listed on the Mainboard of the Singapore Exchange in 2000. Qian Hu has been in the ornamental fish business since 1998 and exports ornamental fish to more than 80 cities and countries around the world, from its hubs in Singapore, Malaysia, Thailand, Indonesia and China. Qian Hu has three integrated reporting segments: **Ornamental fish** (breed, farm, import, export and distribute Dragon Fish and other breeds of ornamental fish), **Accessories** (manufacture, export and distribute aquarium and pet accessories) and **Plastics** (manufacture of plastic bags for own-use and sale to third parties). Qian Hu is now venturing into **Aquaculture** and it will likely be reported as a separate business segment by end-FY18.

Site Visit Highlights

Hainan is the aquaculture hub of China

Hainan has favourable climate that is conducive for aquaculture farming all year round. This is unlike the rest of mainland China, which generally experiences the four seasons, and the temperature during winter months is not suitable for aquaculture farming. There are more than 2,000 aquaculture farms in Hainan. Qian Hu has sited its aquaculture operations here so that it can be close to the market to source for fingerlings and table sized fish. (A fingerling is a juvenile fish that has developed scales and working fins.)

Demand for edible seafood underpinned by world population growth

According to United Nations research, the world population is expected to grow 1% annually till 2030. Traditional food source of wild fish stock is vulnerable to over-fishing, while aquaculture is constrained by disease. Hence, there is an impetus to grow sustainable farming further, in order to ensure sufficient supply of food to feed the growing world population.

Qian Hu has proprietary products and competencies from the ornamental fish business that are transferrable to the aquaculture business

Qian Hu has the know-how in exporting *live* fish and achieving a dead on arrival (DOA) rate of less than 3%. This is achieved through the use of their patented water filtration system, Hydro-Pure, and proprietary fish feed. Qian Hu has also recently partnered a maker of herbal based medication for fish.

Valuation

Current price of 19 cents is 59 times of annualised 1H FY18 0.16 cent EPS and has a price-to-book ratio of 0.42 times.

Not Rated

LAST CLOSE PRICE	SGD 0.19
FORECAST DIV	N.A.
TARGET PRICE	N.A.
TOTAL RETURN	N.A.

COMPANY DATA

BLOOMBERG CODE:	QIAN SP
O/S SHARES (MN):	114
MARKET CAP (USD mn / SGD mn):	17 / 23
52 - WK HI/LO (SGD):	0.23 / 0.15
3M Average Daily T/O (mn):	0.02

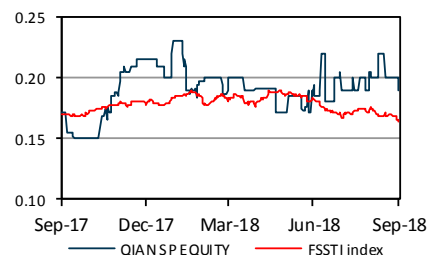
MAJOR SHAREHOLDERS (%)

QIAN HU HOLDINGS PTE LTD	24.0%
YAP AH SENG	3.5%
YAP KIM CHOON	3.5%
YAP AH SIONG	3.5%
YAP KIM LEE	3.1%

PRICE PERFORMANCE (%)

	1M TH	3M TH	1YR
COMPANY	(2.4)	2.6	17.0
STI RETURN	(3.2)	(7.9)	0.9

PRICE VS. STI



Source: Bloomberg, PSR

KEY FINANCIALS

Y/E Dec	FY 15	FY 16	FY 17
Revenue (SGD mn)	78.0	80.5	87.8
Gross profit (SGD mn)	22.2	23.7	26.3
PATMI (SGD mn)	0.02	0.07	0.33
EPS (cents)	0.02	0.06	0.29
P/E (x)	825	160	69
BVPS (cents)	44.3	44.5	45.5
P/B (x)	0.37	0.20	0.44
DPS (cents)	0.2	-	0.2
Div. Yield (%)	12	-	10

Source: Company Data, PSR est.

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Background

In January 2017, Qian Hu announced in conjunction with its FY16 financial results that it had set up a 51%-owned subsidiary Qian Hu Aquaculture (Hainan) Co., Ltd, to farm antibiotic-free edible fish, such as groupers, in Hainan Province, China. The subsidiary was set up with a registered capital of RMB6 million (S\$1.2 million) and is 49%-owned by a third party who is in the business of herbal medications for fish. This was Qian Hu's first foray into the aquaculture business.

Qian Hu subsequently incorporated a 60%-owned subsidiary, Tian Tian Fisheries (Hainan) Co., Ltd, with a registered capital of RMB3 million (S\$600k) in November 2017. The entity was set up to breed and farm shrimp, export edible fish from Hainan to Southeast Asia, and import other edible fish into China. This was expansion was announced together with the 4Q FY17 financial results.

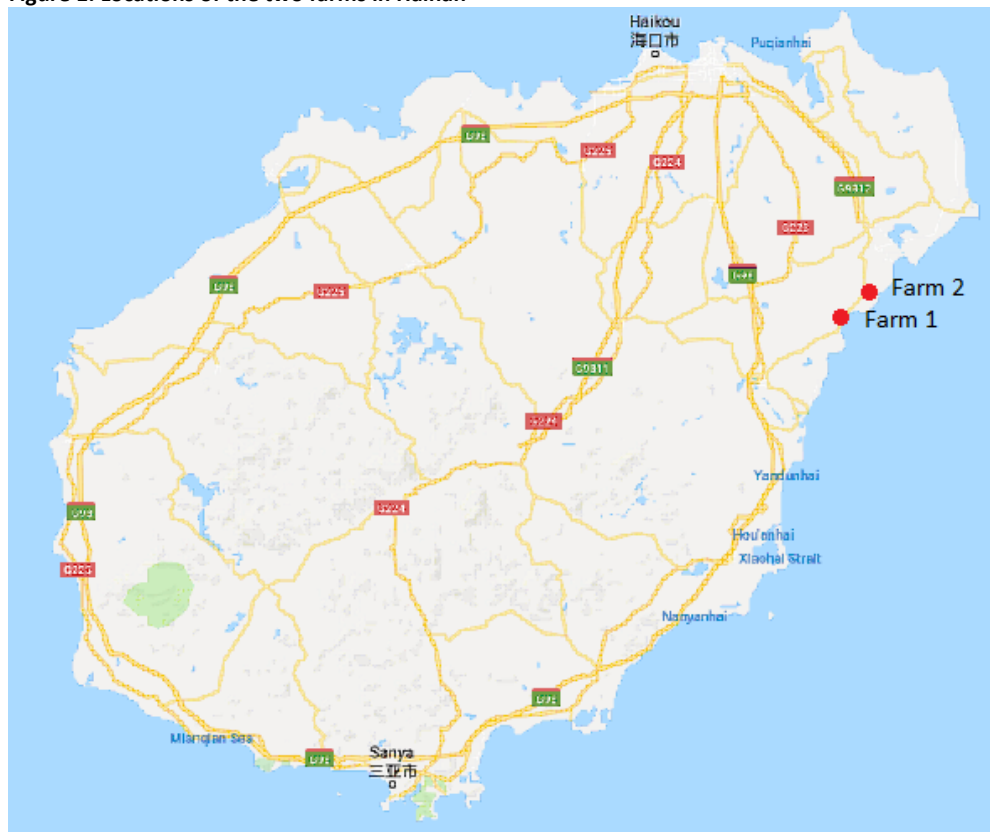
With these two farms, the intention of the Group is to become a fully-integrated aquaculture farm that is able to capture the entire value chain of edible seafood from breeding to farming to the table.

Set up in Hainan to be close to the action

Hainan is the aquaculture hub of China. The key differentiating factor for Hainan compared to the rest of mainland China is its climate that is suitable for year-round aquaculture. As such, the market is well-developed with more than 2,000 farms. By locating in Hainan, Qian Hu can leverage on the existing networks, infrastructure and platforms to source for fingerlings and table size fish for purchase, sale and export. Qian Hu currently has two farms in Hainan, both located in Wenchang.

- Farm 1 relates to Qian Hu Aquaculture (Hainan) Co., Ltd
- Farm 2 relates to Tian Tian Fisheries (Hainan) Co., Ltd

Figure 1: Locations of the two farms in Hainan



Source: Google Maps, PSR

Bringing over transferrable experience from the ornamental fish business to export edible fish

The key expertise that Qian Hu brings along into the aquaculture venture is its experience and know-how in exporting *live* fish. Ensuring that the fish arrive alive is critical in the

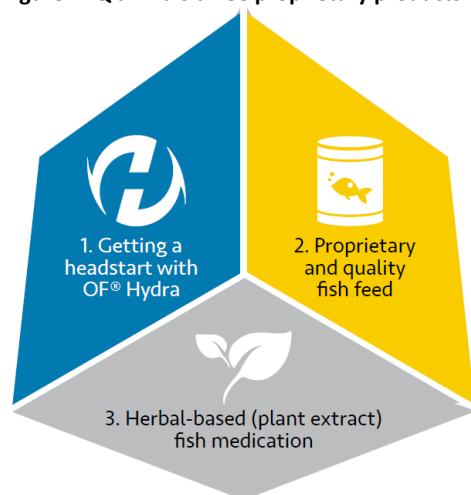
ornamental fish business. Unlike fish for consumption which can be sold frozen, ornamental fish are for viewing pleasure and must arrive alive to the buyer. Qian Hu has a key performance indicator of having less than 3% dead on arrival (DOA). Moreover, the ornamental fish must arrive healthy. Qian Hu has been able to deliver *health* and *live* fish through its competencies of providing fish with clean water and good quality feed.

Qian Hu's proprietary products

Firstly, Qian Hu's aquaculture farms are equipped with their own OF® Hydra system, which is powered by their proprietary Hydro-Pure technology. The Hydro-Pure technology was originally developed for ornamental fish aquariums. Its application at the aquaculture farms is to filter and ionise the sea-water, bringing ammonia and nitrates to acceptable levels for the fingerlings, as well as oxidise heavy metals to be removed. All of the water used in the tanks on Qian Hu's farms go through this process. As such, Qian Hu adopts a recirculating water system for its farms. This is in contrast to the flow-through system that the other farms around them use. By using recirculated water, Qian Hu is less susceptible to introducing unclean water into their farms, should there be an outbreak of aquaculture illness. (Traditional farms simply discharge their waste water back into the sea under the flow-through system.)

Qian Hu also has the know-how in fish nutrition. While on the farm, the health of the fingerlings and grown up fish are maintained through the use of Qian Hu's proprietary fish feed that is free from antibiotics and proprietary herbal-based fish medication.

Figure 2: Qian Hu's three proprietary products



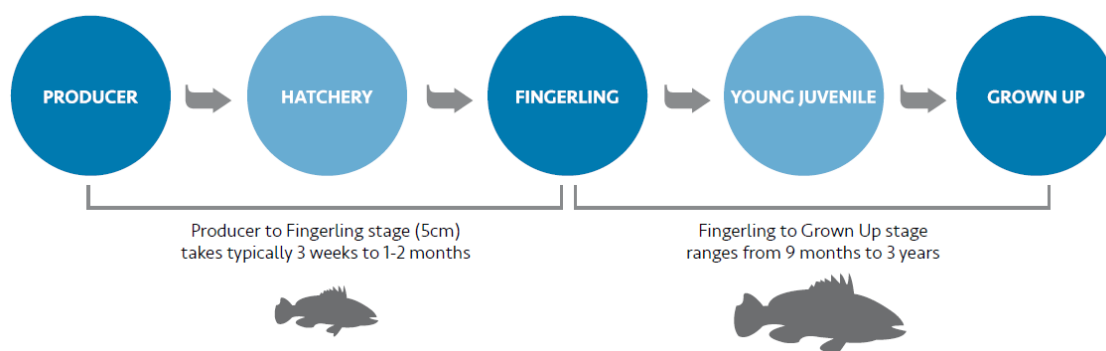
Source: Company FY17 Annual Report

Positioned at the fingerling and grown up stages of the supply chain and being a trader

Qian Hu's Hainan operations are currently centred on the fingerling and grown up stages (Figure 3). Qian Hu imports grouper fingerlings into Hainan or buys fingerlings from local hatcheries and then sells them to local farms or export to farms overseas. Depending on customer requirements, fingerlings are grown to various sizes before being sold. Qian Hu's value-add in this stage is the beefing up of the fingerlings' health through the above three proprietary products and raising the fingerlings' ability to survive the export journey. It is critical for fingerlings to arrive at the customers' farms alive, as a fingerling is not a commercially viable edible fish yet.

Similar to the fingerlings, grown up fish are sourced in Hainan, and Qian Hu quarantines them before being exported. During the quarantine, the fish are kept in water that have gone through the filtration system, and are fed with Qian Hu's proprietary fish feed to strengthen them for the export journey. Qian Hu does not sell grown up fish within Hainan.

Figure 3: Aquaculture eco-system



Source: Company FY17 Annual Report

Second-generation leaders spearheading the aquaculture transformation

The Hainan operations is led by Head of Aquaculture, Mr Yap Kok Cheng (nephew of Mr Kenny Yap Kim Lee, the Executive Chairman & Chief Executive Officer and son of Mr Yap Hock Huat, who is Mr Kenny Yap's brother). Kok Cheng first joined Qian Hu in 2005 as a management trainee in Beijing and has been based in China ever since.

Assisting Kok Cheng in Hainan, are his brother Mr Yap Kok Fong, who is in charge of procurement and their brother-in-law, Mr Lim Yik Kiang, who is in charge of exports. Both Kok Fong and Yik Kiang have been based in China for more than 10 years, performing roles within Qian Hu's ornamental fish and accessories businesses.

About the farms

During the site visit, we were shown both of Qian Hu's farms. Farm 1, located in Yan Dun Wen Yuan village deals in finfish and is the entity that holds Qian Hu's Hainan *export* licence. Farm 2, located 16 km away at Bao Shi village deals with shellfish and is the entity that holds Qian Hu's Hainan *import* licence. Both farms were incorporated together with business partners, but are managed and operated by Qian Hu.

Farm 1, under Qian Hu Aquaculture (Hainan), turned operational in May 2017

Qian Hu incorporated a 51-% owned subsidiary with a third-party business partner with herbal medication for fish. Farm 1 was originally set-up to breed groupers and sits on 0.6 hectare site and consists of 102 cement tanks for aquaculture. Today, Farm 1 serves as a quarantine stage for various species of fingerlings and fish such as grouper, pompano, marbled goby and snapper.

The plot has a 16.5 years lease term remaining, as at January 2017. Farm 1 is currently only engaged in turnover of fingerlings and grown up fish, but the strategic aim is to eventually possess brooder stocks for breeding purpose (hatchery stage of the aquaculture eco-system).

Figure 4: Entrance to Farm 1, with the administrative building/living quarters in the background



Source: PSR

Figure 5: Open-air tanks with overhead cover

Source: PSR

Figure 6: Cement tanks in Farm 1

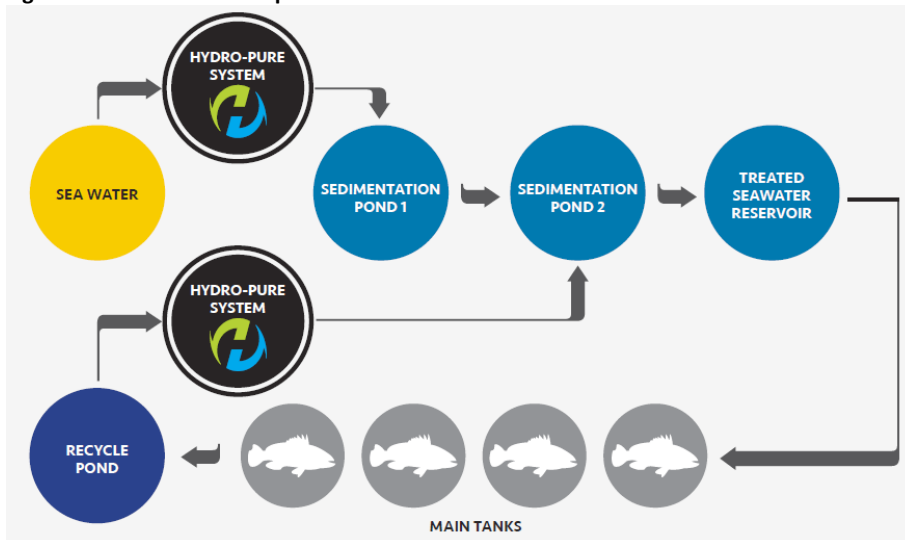
Source: PSR

Figure 7: Fish in tanks

Source: PSR

Water for the farm is first pumped from the sea (about 1 km away) and goes through Qian Hu's proprietary Hydro-Pure system. The water then passes through two sedimentation ponds. This is where heavy metals oxidise and are removed for the water. The water then goes through an aeration process before entering the treated seawater reservoir. The treated seawater reservoir then supplies water to the individual tanks. Water from the tanks can be discharged directly back to the sea or to the farm's recycle pond. The farm's recycle pond serves two purposes: one is to have a buffer water supply during the low tide, and the other to minimise re-introducing water seawater which contains discharge from the neighbouring farms.

Figure 8: Water-treatment process for Farm 1



Source: Company

Figure 9: Proprietary Hydro-Pure system and water flowing into Sedimentation Pond 1



Source: PSR

Figure 10: Sedimentation Ponds 1 and 2 (left), aeration and Treated seawater reservoir (right)



Source: PSR

Figure 11: Treated seawater reservoir



Source: PSR

Figure 12: Cement tanks



Source: PSR

Figure 13: Recycle pond



Source: PSR

Figure 14: Adult marbled goby in tank



Source: PSR

Figure 15: Marbled goby packed for export



Source: PSR

Figure 16: Packing of grouper fries for export



Source: PSR

Figure 17: Oxygen being pumped into plastic bag of grouper fries



Source: PSR

Figure 18: Grouper fries packed for export



Source: PSR

Farm 2, under Tian Tian Fisheries (Hainan), turned operational in June 2018

Hot on the heels of the success of Farm 1, Farm 2 was incorporated shortly after in November 2017. Tian Tian Fisheries (Hainan) Co., Ltd is 60%-owned by Qian Hu with the remaining 40%-stake held by a business partner. This is the entity that holds Qian Hu's Hainan import licence.

Farm 2 was originally set-up to breed and farm shrimps, but it is currently a model farm or test-bed for lobster farming. There are many snail farms in Hainan, and Qian Hu wants to convince snail farmers to convert to lobster farming. Farm 2 is a model farm to prove that lobster farming is a viable business. Qian Hu is currently farming adult lobsters from the fingerling stage. After the business model is proven viable, Qian Hu will focus on supplying the lobster fingerlings to the local farms for growing into adult lobsters.

Farm 2 sits on 0.4 hectares of land and the site is rented. There are 104 cement tanks for aquaculture. Farm 2 uses the same proprietary Hydro-Pure system as Farm 1. Water is pumped in from the sea (100m away) and goes through the filtration system at the top of a water tower.

Figure 19: Proprietary Hydro-Pure system at the top of the water tower (left) and open-air tanks with overhead cover (right)



Source: PSR

Figure 20: Bricks in the tank are to give the lobsters hiding places as they will cannibalise each other



Source: PSR

Figure 21: One-month old lobster fingerling



Source: PSR

Figure 22: Juvenile lobsters hiding around a brick



Source: PSR

Figure 23: Juvenile lobster



Source: PSR

Financials

Income Statement

Y/E Dec, (\$ mn)	FY14	FY15	FY16	FY17
Revenue	83.5	78.0	80.5	87.8
COGS	(60.3)	(55.8)	(56.7)	(61.6)
Gross profit	23.2	22.2	23.7	26.3
SG&A	(21.9)	(21.5)	(23.7)	(25.2)
Others	0.03	0.22	0.30	0.12
EBIT	1.33	0.89	0.35	1.15
Net Finance (Expense)/Inc	(0.25)	(0.30)	(0.33)	(0.38)
Share of associate	0.02	(0.05)	(0.03)	(0.01)
Profit Before Tax	1.10	0.55	(0.01)	0.76
Taxation	(0.41)	(0.28)	0.33	(0.21)
Profit After Tax	0.69	0.27	0.32	0.55
- Non-controlling interest	0.30	0.25	0.25	0.22
PATMI	0.39	0.02	0.07	0.33

Per share data (cents)

Y/E Dec	FY14	FY15	FY16	FY17
EPS	0.35	0.02	0.06	0.29
DPS	0.10	0.20	-	0.20
BVPS	44.97	44.31	44.48	45.48

Cash Flow

Y/E Dec, (\$ mn)	FY14	FY15	FY16	FY17
CFO				
Profit Before Tax	1.1	0.5	(0.0)	0.8
Adjustments	2.5	2.1	2.3	2.8
WC changes	0.8	(0.8)	0.9	3.3
Cash generated from ops	4.4	1.8	3.3	6.9
Others	(0.4)	(0.3)	(0.2)	(0.2)
Cashflow from ops	3.9	1.5	3.1	6.7
CFI				
Capex, net	(1.8)	(1.7)	(2.3)	(4.6)
Others	0.0	0.0	(0.0)	0.0
Cashflow from investments	(1.8)	(1.7)	(2.3)	(4.6)
CFF				
Loans, net of repayments	1.1	0.3	0.8	0.2
Dividends	(0.8)	(0.5)	(0.2)	(0.1)
Others	(0.8)	(0.3)	(0.3)	0.2
Cashflow from financing	(0.4)	(0.6)	0.2	0.3
Net change in cash	1.8	(0.7)	0.9	2.4
Beginning cash	6.7	8.6	7.8	8.7
Effect of exchange rate	0.1	(0.1)	0.0	0.0
Ending cash	8.6	7.8	8.7	11.1

Source: Company, Phillip Securities Research (Singapore) Estimates

Balance Sheet

Y/E Dec, (\$ mn)	FY14	FY15	FY16	FY17
ASSETS				
PPE	7.7	8.1	8.7	9.6
Biological assets	8.6	8.4	8.2	9.4
Accounts receivable	1.2	-	9.0	9.0
Intangibles	0.3	0.3	0.9	3.4
Others	0.4	0.3	1.9	1.6
Total non-current assets	18.2	17.1	28.7	33.0
Accounts receivable	25.9	25.6	17.6	17.0
Inventories	16.5	15.7	15.5	15.6
Cash	8.6	7.8	8.7	11.1
Others	7.4	9.6	7.2	5.0
Total current assets	58.5	58.7	48.9	48.7
Total assets	76.7	75.8	77.7	81.6

LIABILITIES

Short-term loans	13.8	14.4	15.2	16.0
Accounts payable	6.4	6.0	7.4	7.3
Others	4.8	4.5	4.1	6.3
Total current liabilities	25.1	24.9	26.8	29.7
Long-term loans	0.2	0.1	0.4	0.2
Others	0.4	0.4	0.0	0.1
Total non-current liabilities	0.6	0.6	0.4	0.3
Total liabilities	25.6	25.5	27.2	30.0

EQUITY

Shareholders' equity	49.5	48.7	48.5	48.9
Non-controlling Interests	1.5	1.6	1.9	2.7

Valuation Ratios

Y/E Dec	FY14	FY15	FY16	FY17
P/E (x)	90	825	150	69
P/B (x)	0.70	0.37	0.20	0.44
Dividend Yield (%)	0.3%	1.2%	0.0%	1.0%

Growth & Margins (%)

Growth				
Revenue	-6.7%	3.2%	9.1%	
Gross profit	-4.5%	7.1%	10.6%	
EBIT	-32.9%	10.2%	6.5%	
Profit After Tax	-60.8%	38.7%	-60.5%	
PATMI	-95.2%	-60.7%	229%	
Margins				
Gross profit margin	27.8%	28.4%	29.5%	29.9%
EBIT margin	1.6%	1.1%	0.4%	1.3%
PATMI margin	0.5%	0.0%	0.1%	0.4%

Key Ratios

ROE (%)	0.04%	0.14%	0.68%	
ROA (%)	0.36%	0.42%	0.69%	
Net Debt or (Net Cash)	6.8	6.8	5.2	
Net Gearing (x)	13.5%	13.6%	10.0%	

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