LIGHTHOUSE ADVISORS
Keeping Your Capital Safe

Lighthouse Advisors Private Limited
Reg. No. 201212773E
Suite 1103, #11-00 The Octagon
105 Cecil Street, Singapore 069534
www.lighthouse-advisors.com

Client Newsletter for the period ended 31 March 2016

1. Foreword

Fellow Investors,

Welcome to the Lighthouse Advisors newsletter for March 2016.

This newsletter follows the same format as previous issues. The special topic for this issue is **Same Same, But Different**.

2. Market Commentary

2016 began much as 2015 ended, so there is little in the way of news.

Negative interest rates seem to be in fashion. While low interest rates are helpful in theory, as debtors will find it easier to service their loans, there is also moral hazard because it lowers the hurdle for risky borrowing behaviour.

Many developed economies are now sailing in uncharted waters with negative interest rates either deliberately set by their central banks, or created by investors forced by regulations to hold long-term sovereign bonds.

Perhaps the world will indeed grow its way out of the current malaise, the borrowers pay back their loans, and everyone lives happily after.

But an alternate, and more realistic scenario, is that good money is thrown after bad, and in the end there is a showdown with bondholders who realize they will not be able to get their money back, because the underlying projects financed with “free money” were of such poor quality that losses were realized instead of profits. China is slowly facing up to this reality, as discussions of debt-to-equity conversions are becoming louder and more frequent[1].

Bonds remain a dangerous investment at current price levels. Investment grade bonds offer too little return, while junk bonds offer too much risk. It is likely that at some point in the future we will look back and say, “this was a bond bubble.”

Stock markets have continued their gyrations. Notably, the Shanghai Composite has fallen 15% for the first quarter. The Chinese A-share market still remains overvalued, but if the slide continues it will eventually become interesting. For now, Hong Kong remains a more sensible way to invest into China.

As stock markets continue to fall, potential future returns increase commensurately. Your manager is now quite busy with research, and expects that there will be a few new names in the portfolio when the next newsletter is published for the quarter ended 30 June 2016.

Benjamin Koh
Investment Manager
Lighthouse Advisors
6 May 2016

3. Portfolio Review

As at 31 March 2016, the Net Asset Value (NAV) of the Fund was USD 88.82. Net of all fees, the year-to-date return for 2016 was 2.9%.

19 securities made up 84% of the Fund’s holdings, with the balance in cash. A pie chart is in Annex I, while NAV values are tabled in Annex II.

[1] *China explores debt-for-equity swaps to defeat bad debt pile-up*, **Financial Times**, 16 March 2016.

Winners and Losers

Dongpeng was the largest contributor to the Fund's returns for the quarter. As explained below, it received a buyout offer from its controlling shareholders. From 31 December through 31 March, the stock gained over 40%.

Fu Yu was also a large contributor. It appreciated 20% over the first quarter on the back of strong results for 2015.

Sunningdale Tech climbed nearly 20% as it reported good results for 2015.

Clear Media was the largest detractor. The stock fell 16% despite good results for 2015, perhaps because no special dividend was declared.

Nera Telecom declined 13% due to a 31% drop in profits plus a cut in the full-year dividend.

Straco dropped 11% despite reporting strong results for 2015, possibly because of lower visitor numbers at Underwater World Xiamen.

New Investments

There were no new investments for the Fund.

Divestments

There were no divestments from the Fund.

Other Significant Events

ARA Asset Management reported results for 2015. Profits declined 11%, primarily due to reduced acquisition, divestment and performance fees and lower finance income. Management fees increased 3%. A final dividend of S$0.027 per share was declared. Assets under management reached S$29.8 bn, a 12% increase over the previous year.

Clear Media reported its results for 2015. Profits rose 17% and the final dividend was increased 6%. No special dividend was declared as the company continues to take advantage of favourable market pricing to expand its advertising network. The shares remain undervalued and the Fund acquired additional shares.

Dongpeng received a notice from chairman He Xinming and pre-IPO investor Sequoia Capital that they intend to privatize the company for HK$4.48 per share. This is a large premium to the last traded price and vindicates your manager's view in the last newsletter that the company's shares were very cheap. However, the offer price it is very close to the Fund's cost basis, so an exit at the offer price will not generate meaningful profits.

Fu Yu reported results for 2015. Quarterly profits declined 28%, but full-year profits were up 41%. A 1-cent dividend was declared, taking full year dividends to 1.5 cents per share. The Fund acquired additional shares during the quarter. The shares remain undervalued.

Greatview Aseptic reported a 13% increase in profits for 2015, mainly due to a sharp rise in profitability at its international operations. The German plant took longer than expected to ramp up, but now appears to be executing well. Dividends were increased by 10%.

k1 Ventures reported its half-year results for FY16. Following the sale of its stake in Knowledge Universe Holdings, a dividend of 21 cents per share was declared. The company's balance sheet now consists essentially of cash and its investment into the Guggenheim Common Units and Warrants. The company is on track to complete liquidation by June 2017, when the Warrants can be converted or sold back to Guggenheim. The shares remain undervalued versus your manager's estimate of net asset value.

Nera Telecom announced results for 2015. Profits fell 31%, due to delayed orders as well as foreign currency translation losses. The final dividend was reduced from 2 cents to 1 cent due to insufficient distributable reserves at the holding company, as much of the cash was still held in its overseas subsidiaries. Once the cash is repatriated, the company's reserves will increase, and it will be able to resume paying dividends. The company's operations remain strongly cash generative.

Overseas Education reported results for 2015. Full-year revenues declined 5% but profits fell 22% on higher depreciation and finance costs after the company shifted to its new premises. The final dividend was reduced, but taking into account the special interim dividend, total dividends were maintained at the same level as 2014. The share price has declined significantly, but longer-term prospects remain sound as Singapore remains attractive to foreign expatriates with school-going children, and the school still maintains a good reputation among the foreign system schools. Its new Mother Tongue programme has proven effective in recruiting additional students, and will be expanded further. For now, the poor global economy has hit enrolments across the board at all the foreign system schools in Singapore, as many expatriates have been recalled home or simply laid off. It may be a few years before enrolments pick up again. In the meantime, the stock trades near its net asset value i.e. the company is being valued on the basis of its campus alone, with no credit given for its actual business.

Pico Far East reported good results for 2015. Profits were up 14%. Full-year dividends were increased 33% over 2014. The Fund acquired additional shares prior to the results release. The shares remain undervalued at 9 times trailing earnings and yield over 6%.

Sarine reported a recovery in its 2015 results. Fourth-quarter results showed a return to profitability, however full-year profits were down 87% against 2014. The final dividend was reduced to USD 1.5 cents given the poor historical results. However, the board believes the worst of the industry downturn is over, as the oversupply of polished diamonds has been cleared and De Beers, a major rough diamond supplier, held a successful sale in February.

Straco reported good results for 2015. Following the acquisition of the Singapore Flyer in late 2014, fourth-quarter profits increased 42% while full-year profits rose 30%. However, visitor numbers at Underwater World Xiamen declined due to crowd control measures implemented on Gulangyu Island by the Chinese authorities. Dividends were increased 25%.

Sunningdale Tech reported strong results for 2015. Quarterly profits were up 18% and full year profits were up 52% following the acquisition of First Engineering. Dividends were increased 20% to 5 cents per share. The shares remain deeply undervalued.

4. Same Same, But Different

In the world of stock market investments, most CEOs will tell investors that their company is somehow special. The truth is more prosaic. Despite all the creativity and ingenuity of the human spirit, in business it is the "normal" that prevails. Once in a while, a company does develop an entirely new product or a novel method, but soon enough, competitors catch on, and what is new becomes "normal". This is the one-half of the basis for the concept of *mean reversion*, where best practices are adopted, excessive costs are cut, and the gap between the leaders and the laggards narrows. The other half of mean reversion is that leaders get complacent and underinvest in the business, diverting profits into corporate perks like private jets and holding board meetings at luxury resorts. Such distractions eventually drag on the business and allow competitors to catch up.

What does this mean for the investor in common stocks? Simply put, companies in the same industry should earn roughly the same amount of money on a given amount of sales or a given amount of assets. Different industries have different profit margins due to differences in pricing power versus their customers and suppliers. But within a given industry, most companies use similar equipment, employ from the same labour force, buy from the same group of suppliers, make the same type of products, and sell them to the same group of customers.

This is especially true for companies that sell to other companies. In the business-to-business ("B2B") world, branding has little effect; you generally get what you pay for. Companies selling consumer products fare better here, as advertising and promotion can help differentiate otherwise similar products and improve margins.

When analyzing industrial companies, therefore, investors can use a peer comparison as a common-sense check that the company is "normal". Two contrasting worked examples will drive home the point.

Fibre optic cables have become the main mode of long-distance information transmission worldwide. As such, many manufacturers of such cables have enjoyed commercial success. In China, one can find the following listed companies whose core business is the manufacturing of optical fibre and related products:

Name
Yangtze Optical Fibre (YOFC)
China Fiber Optic Network (CFON)
Tongding Interconnection Information (Tongding)
Jiangsu Etern Company (Etern)
Hengtong Optic-electric (Hengtong)
Jiangsu Zhongtian Technology (Zhongtian)

Optical fibres are clearly a commodity: once purchased and installed, they are essentially forgotten until they need replacement. In an office environment, this may well be never. Underground, replacement will likely only occur when a contractor operating heavy machinery accidentally severs a cable while digging on some unrelated project.

The logical inference with regard to margins would be that fibre optic cable makers should earn the same margin for what are essentially interchangeable commodity products. Does this hold true? A table of EBITDA margins should give some clues.

	EBITDA Margins			
Name	**2012**	**2013**	**2014**	**2015**
YOFC	10.1%	12.5%	11.8%	11.4%
CFON	28.1%	28.4%	28.8%	26.2%
Tongding	11.3%	15.1%	14.1%	13.0%
Etern	4.4%	6.1%	5.1%	6.3%
Hengtong	9.6%	9.8%	9.1%	10.3%
Zhongtian	13.5%	13.3%	12.0%	8.8%

Two things are apparent. First, margins are relatively stable for each company. This suggests that demand is steady, so the companies do not see large swings in capacity utilization. Second, 10-12% seems to be the "standard" margin. There are two outliers, CFON and Etern. CFON's margins are unusually high, while Etern's are unusually low. Might this be due to economies of scale? If CFON is much larger it could enjoy cheaper raw material costs, while the converse might be true for Etern. Let's look at revenues.

	Revenues RMB mn			
Name	**2012**	**2013**	**2014**	**2015**
YOFC	4,778	4,826	5,677	6,731
CFON	1,494	1,776	2,209	1,923
Tongding	2,804	2,822	3,031	3,122
Etern	1,371	1,139	1,929	2,256
Hengtong	7,804	8,587	10,422	13,565
Zhongtian	5,812	6,771	9,538	16,523

Surprise! CFON and Etern are the two smallest manufacturers by a significant margin. Hengton and Zhongtian are the two largest manufacturers but do not enjoy better margins, which suggests that Tongding and YOFC have also achieved economies of scale. Etern is likely sub-scale and so lower margins would be expected. CFON is the same size as Etern but enjoys amazing margins compared to Hengtong and Zhongtian, which have 4-8 times CFON's sales. Something does not seem right.

One hint can be found in the balance sheet: if all the companies have the same business model, they should be selling on the same credit terms. We can look at "days sales outstanding", or accounts receivable divided by sales, to see how long the companies take to collect payment.

	Days Sales Outstanding			
Name	**2012**	**2013**	**2014**	**2015**
YOFC	101	114	108	106
CFON	195	229	296	461
Tongding	74	113	127	137
Etern	167	197	111	106
Hengtong	101	102	96	91
Zhongtian	121	136	124	85

Bingo. We have found one answer: CFON can report such impressive margins because its customers enjoy impossibly favorable payment terms. As of 31 Dec 2015 CFON took an average of 461 days to actually collect payment for the sales it recognized.

One wonders what sort of legitimate business would allow its customers an average of 15 months to make payment. Certainly it would not one that a conservative investor should own. By the principle of *Occam's Razor*, which holds that the simplest answer is probably the correct one, a significant proportion of CFON's sales are probably uncollectible and need to be written off, with the corresponding impact on profits.

As it turns out, on 7 August 2015 Emerson Analytics published a research report accusing CFON of exaggerating its sales and therefore its profits. Emerson obtained CFON's SAIC filings and interviewed company executives in order to come to their conclusion.

However, as the peer comparison shows, the suspiciously high EBITDA margin and slow accounts receivables collection were already obvious from the 2013 results. A sensible investor would have known to avoid CFON one year *before* the Emerson report was published.

Our next case study concerns semiconductor foundries. The "pure play foundry" refers to a company without proprietary products, which operates its chip-making facilities on behalf of customers.

In Asia one can identify at least 7 listed companies which operate as pure-play foundries:

Name
Taiwan Semiconductor Manufacturing Co (TSMC)
United Microelectronics Corporation (UMC)
Vanguard International Semiconductor (VIS)
Semiconductor Manufacturing Int'l Corp (SMIC)
Hua Hong Semiconductor (HHS)
Advanced Semiconductor Manufacturing Corp (ASMC)
Dongbu HiTek (Dongbu)

Again, we have an EBITDA margin analysis:

	EBITDA Margins			
Name	**2012**	**2013**	**2014**	**2015**
TSMC	61.5%	61.1%	65.0%	64.3%
UMC	34.1%	34.2%	36.5%	39.4%
VIS	33.3%	33.6%	34.6%	29.7%
SMIC	34.2%	32.0%	33.7%	32.0%
HHS	33.1%	25.2%	27.1%	25.1%
ASMC	12.1%	7.8%	11.7%	7.6%
Dongbu	16.5%	15.9%	21.4%	31.0%

Despite the general perception that semiconductor manufacturing is cyclical, at a glance it is obvious that the industry generally earns 25-33% EBITDA margins. Again, there are two outliers, TSMC and ASMC.

Once again we can look at sales:

	Sales USD mn			
Name	**2012**	**2013**	**2014**	**2015**
TSMC	17,430	19,984	24,033	25,580
UMC	3,979	4,144	4,411	4,392
VIS	591	707	754	707
SMIC	1,702	2,069	1,970	2,236
HHS	571	585	665	650
ASMC	137	119	129	114
Dongbu	555	468	520	566

TSMC is the largest by sales and earns the best margins, while ASMC is the smallest and earns the worst margins. But is scale the only factor?

A look at TSMC, UMC, SMIC and ASMC proves informative. Studying the companies' websites and annual reports, it becomes clear that semiconductor foundries are not all alike. The technology used in the foundries makes a huge difference.

First, the size of the wafers produced impacts economies of scale: 12-inch (300mm) wafers can yield over twice as many dies as 8-inch (200mm) wafers, which in turn yield about two-and-a-half times as many dies as 5-inch (125mm) wafers. (A die is a block of integrated circuits that has not yet been packaged into a chip.) Because the cost of manufacturing larger wafers does not increase as quickly as a wafer's surface area, the larger the wafer, the lower the per-die manufacturing cost. Moving from 200mm to 300mm wafers results in a cost-per-die reduction of 30-40%.

Secondly, the width of the circuits being etched ("process node size") affects the number of dies per wafer. Process node size is measured in nanometers, and narrower circuits mean smaller dies. A "die shrink" to a smaller node size increases the number of dies per wafer, reducing the cost per die. Smaller dies result in smaller chips, which need less power, occupy less space and can often run at higher speeds as well. Compact, power-saving, high-performance chips command a premium, so this creates a virtuous cycle, whereby the foundry can produce at a lower cost, yet sell at a higher price.

There are other factors and additional technologies involved, but wafer size and process node size seem to be the main economic drivers.

Does TSMC have the ability to manufacture large wafers and etch narrow circuits? Yes. In its 2015 annual report, the company states that it operates one 150mm wafer fabrication plant ("fab"), six 200mm fabs and three 300mm fabs. In 2015 it was in "volume production" using 16nm technology, and was "continuing development" of 10nm and 7nm technology. Taking 65nm technology (developed in 2006) as an obsolescence cut-off, 80% of wafer sales in 2015 were at 65nm or below. 16/20nm technology made up 21% of sales, and 28nm was 27%.

UMC has one 150mm fab, seven 200mm fabs and two 300mm fab. Its 2015 annual report indicates that 28nm technology only accounted for 4.5% of output in 2015. 65nm and smaller node sizes totaled 38% of output, so over 60% of production was based on technology more than 10 years old. UMC may be competitive with TSMC in terms of wafer output, but it trails in technology.

SMIC's 2015 annual report shows that it operates three 200mm fabs and three 300mm fabs, so its output trails UMC. It began mass production at the 28nm process node in 2015. In 2015, only 40% of sales came from technology nodes smaller than 65nm. In fact 42% of sales were still coming from 0.18µm (180nm) technology, which was first commercialized in 1999. So SMIC also lags UMC in technology terms.

As for ASMC, its website shows a "technology roadmap" that indicates the company only adopted 0.35µm (350nm) technology in 2015. 0.35µm technology was commercially available in 1995. AMSC has two fabs, one for 125mm and 150mm wafers, and another for 200mm wafers. Its annual report discloses that 125mm, 150mm and 200mm wafers accounted for 9%, 41% and 50% of sales in 2015. For reference, TSMC's 150mm fab began operations in 1990.

In other words, in 2015 ASMC derived 41% of its sales from technology commercialized over 25 years ago, and it had only just begun to use technology that first became available 20 years ago. Clearly, in technology terms, ASMC is so far behind UMC and SMIC, let alone TSMC, that it is running a different race entirely. Its business strategy has to focus on low-priced, low-margin products, and this is reflected directly in its financial statements.

Where does this leave the investor? Given the technology differences among the different players, it behooves the investor to think carefully about which segment he wishes to be involved in. TSMC is clearly the market leader, and is likely to remain so for an extended period of time. Its current high level of sales, combined with outstanding levels of profitability, all but guarantee that it will generate surplus cash to invest into research and development (R&D) to stay ahead of its rivals.

TSMC is the Coca-Cola of the foundry world: just as Coke can outspend its rivals on advertising because it spreads the cost over many more bottles of Coke, TSMC can outspend its rivals on R&D because it spreads these costs over many more chips. The R&D helps it maintain and hopefully widen its lead, which in turn allows it to generate even more profits, resulting in more cash to spend on R&D, etc.

The following table shows just large the gap is:

	2014 R&D Expense		2015 R&D Expense	
Name	**USD mn**	**% of Sales**	**USD mn**	**% of Sales**
TSMC	1,790	7.4%	1,988	7.8%
UMC	430	9.8%	369	8.4%
VIS	38	5.0%	38	5.3%
SMIC	190	9.6%	237	10.6%
HHS	31	4.6%	48	7.3%
ASMC	6	4.4%	5	4.3%
Dongbu	38	7.4%	42	7.4%

The numbers speak for themselves. TSMC spends 7-8% of sales on R&D, which is similar to its peers in terms of ratio, but in dollar terms this is actually 4-5 times as much the next largest spender UMC, and more than 3 times the combined spending of UMC and SMIC.

In technology, TSMC's only real rivals are STMicroelectronics, Intel and Samsung, who all develop their own proprietary products and are thus integrated manufacturers, with all the attendant benefits and problems.

ASMC is clearly a completely different animal. With low levels of sales and thin margins, there is almost no money to spend on R&D, so the company has to make do with older technology, which in turn restricts it to low-priced, low-margin products.

Just as TSMC operates within a virtuous cycle by using its profits to invest into R&D, which in turn allows it to manufacture products that sell for high margins, ASMC is trapped in a vicious cycle because its low-margin products do not generate enough cash to invest into R&D that could upgrade its capabilities to produce more profitable products.

An investor who pays a small premium for TSMC may well find that the company can grow and justify that premium within a few years, while the investor buying ASMC at a large discount may find himself waiting a long time for the discount to narrow. Indeed, more than 10 years after its listing, ASMC shares trade at less than 40% of their IPO price. No dividends have been paid since listing, and given its business model, dividends seem unlikely for the foreseeable future.

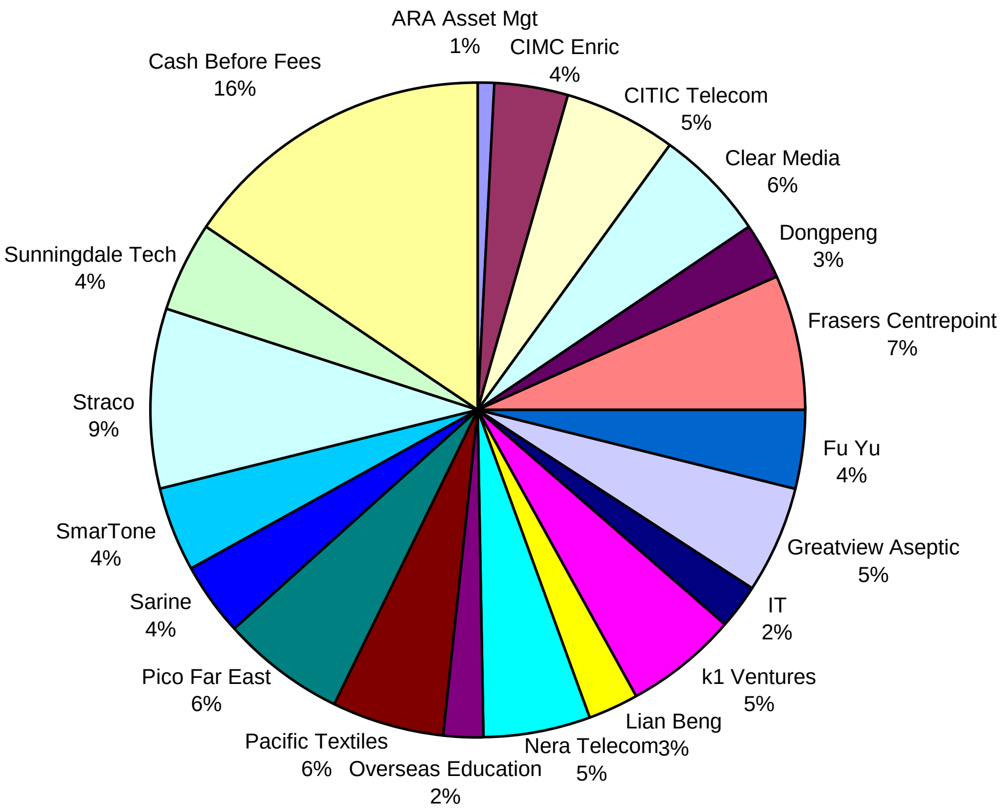
Long-term investors in TSMC, in contrast, have done quite well: over 20 years the stock is up 6-fold. In the last 10 years, the stock has more than doubled, and dividends have been paid every year since 2003, so the investor's total return would have been quite comfortable.

In conclusion, in some industries it really is "same same" where the competitors are all alike and should make the same money, but in other industries it is "same same, but different" wherein the supposed competitors may overlap a little but are not actually in the same business, so results can and do differ. The investor must do his homework to understand which peer comparison situation he faces.

End

Annex I

Fund Holdings as of 31 Mar 2016



Annex II

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2008										34.16	33.49	35.62	**+4.3%**
2009	34.57	33.52	33.37	36.69	46.20	46.00	50.06	49.68	52.66	54.17	56.68	59.94	**+68.3%**
2010	59.05	61.09	65.17	68.27	64.14	65.69	70.65	72.24	81.06	83.56	85.10	90.30	**+50.6%**
2011	87.21	86.29	88.13	92.81	90.85	91.35	91.17	83.69	69.04	78.23	73.00	72.88	**-19.3%**
2012	77.40	82.90	82.52	83.32	76.36	77.25	77.27	77.91	80.57	79.44	82.70	84.92	**+16.5%**
2013	91.43	97.36	99.96	100.24	99.14	95.09	98.50	100.00	100.86	102.24	102.63	102.93	**+12.6%**
2014	99.15	101.78	99.80	101.84	105.45	106.57	109.05	108.58	103.60	103.91	101.87	99.94	**-2.9%**
2015	97.97	98.16	97.74	103.80	103.69	100.99	96.17	85.91	84.17	88.91	86.20	86.35	**-13.6%**
2016	81.56	83.81	88.82										**+2.86%**

Note: The Net Asset Value of the Fund has been linked to the rebased NAV of the Reference Account, which had the same investment style. Until the launch of the Fund, the Reference Account served as the model portfolio for all the separately-managed client accounts. Its trading records were distributed to clients as proof that the Manager's interests were fully aligned with those of the clients. The Reference Account was started at the end of 2008 and became inactive following the launch of the fund on 1 September 2013