PublicInvest Research Company Initiation

Monday, October 12, 2020

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GREATECH TECHNOLOGY BERHAD

Outperform

DESCRIPTION

Automation solutions provider manufacturing single automated equipment and production lines, with unique exposure to the photovoltaic, energy storage and medical device sector.

12-Month Target Price	RM8.80
Current Price	RM6.80
Expected Return	29.4%

 Market
 Main

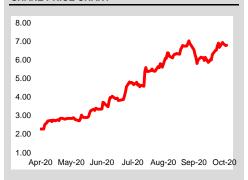
 Sector
 Technology

 Bursa Code
 0208

 Bloomberg Ticker
 GREATEC MK

 Shariah-Compliant
 Yes

SHARE PRICE CHART



52 Week Range (RM)	RM1.34 – RM7.21
3-Month Average Vol ('000)	1,795.1

SHARE PRICE PERFORMANCE

	1M	3M	12M
Absolute Returns	7.6	41.5	196.1
Relative Returns	8.2	47.6	159.1

KEY STOCK DATA

Market Capitalisation (RMm)	4,256.8
No. of Shares (m)	626.0

MAJOR SHAREHOLDERS

	%
GTECH Holdings SB	70.3
LLH Holdings SB	3.2

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Greater Things To Come

Greatech is one of world's leading automation solution providers, specializing in the space of factory automation, with unique exposure to the photovoltaic (PV) and electric vehicle (EV) battery sectors. With assembly facilities located in Malaysia, it gives Greatech the cost advantage against its US and EU peers, allowing the Group to stay competitive in the global marketplace in terms of pricing, without compromising on the quality of its offerings. We believe Greatech will continue to benefit from its exposure to the PV and EV battery sectors as the both power and automotive sectors are undergoing a structural change, due to the growing focus on renewable energy sources and the commercialization of EVs, of which Greatech has the expertise to tap the growth of these two sectors. We initiate coverage on Greatech with an *Outperform* call and a TP of RM8.80, suggesting a 29% upside. Our valuation is derived based on PE multiple of 40x on its FY21F EPS of 22.0sen per share, implying a PE-to-growth (PEG) ratio of 0.83.

- **Proxy to niche sectors.** Being an automation solutions provider has allowed Greatech to leverage on the growth of different sectors of the economy. Greatech's growth thus far is tied to the growth of the photovoltaic (PV) sector, via its purchase agreement with First Solar. In an attempt to reduce its high customer concentration risk, Greatech made its first foray into the EV battery and medical device segment this year. As opposed to the other local automated test equipment (ATE) players that are more dependent on the semiconductor industry, Greatech is less sensitive to market volatility given its niche exposure to the PV sector. Note that the thin film solar PV market is projected to grow at a CAGR of 23% from year 2020 to 2025.
- Strong earnings growth. Following its latest contract win from Lordstown Motors, Greatech's orderbook has ballooned to an all-time high of RM295m, against RM217.3m in 1QFY20. Being a local player also gives Greatech a cost advantage over its US and EU peers. We reckon that cost competitiveness would help Greatech to gain greater market share in the future. We expect a 3-year earnings CAGR of 47.5% for Greatech, underpinned by a continuous demand for thin film solar panels from its key customer and stronger order from the EV battery segment.
- **Valuation.** We initiate coverage on Greatech with an *Outperform* call, ascribing a PE multiple of 40x on its FY21F EPS of 22.0sen per share. The 40x multiple implies a PEG ratio of 0.83, against its closest local peers' average of 1.9. We view the valuation justifiable, given its expected strong 3-year CAGR of 47.5%, coupled with its exposure to more stable sectors like the PV and medical device sector.

KEY FORECAS	T TABLE (RM m)				
FYE Dec (RM m)	2018A	2019A	2020F	2021F	2022F	CAGR
Revenue	219.6	215.9	291.5	486.8	584.2	39.3%
Gross Profit	45.2	72.9	106.4	186.0	227.8	46.2%
Pre-tax Profit	31.9	57.6	86.8	152.3	186.4	47.9%
Net Profit	31.7	52.3	78.5	137.8	167.8	47.5%
EPS (Sen)	5.1	11.3	12.5	22.0	26.8	
P/E (x)	116.4	52.3	47.0	26.8	22.0	
DPS (Sen)	N.A	N.A	N.A	N.A	N.A	
Dividend Yield	N.A	N.A	N.A	N.A	N.A	

Source: Company, PublicInvest Research estimates

Started off fabricating machined parts and components used in hard disk drive manufacturing and assembly.

Core business now revolves around the provision of automation solution.

Generates revenue via two different streams, namely (i) automated equipment, and (ii) parts and services. Automated equipment is the key contributor to its revenue.

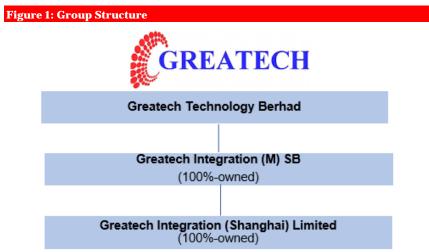
Automated equipment segment includes (i) production line system, and (ii) single automated equipment.

Expanded into the assembly of production line systems in 2017. First production line manufactured was for First Solar.

Company Background

Established in 1997, Greatech started off under the name Dynacut Engineering SB, fabricating machined parts and components that are predominantly used in the space of hard disk drives' manufacturing and assembly. In 2002, the company ventured into the designing and manufacturing of fully automated tape splicing equipment that is commonly used in semiconductor manufacturing. Fast forward to present, the Group's core business now revolves around the provision of automation solutions, including the designing, development and production of equipment, machineries as well as production line systems to help automate processes.

Equipment and production lines developed by Greatech cater to customers across various industries, including but not limited to the photovoltaics, energy storage and semiconductor industry.



Source: Company, PublicInvest Research

Business Overview

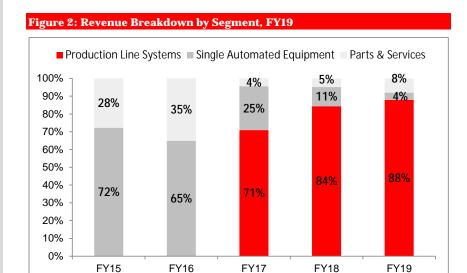
As an automated equipment manufacturer, Greatech generates its revenue via two different streams, namely (i) automated equipment and (ii) parts and services. Automated equipment remains the key contributor to the Group's revenue in FY19, accounting for 92% of the Group's total revenue, while parts and services make up the remaining 8%. The provision of parts and services is mainly to cater for the Group's self-manufactured equipment.

Automated equipment segment can be further broken down into (i) production line system and (ii) single automated equipment.

- § Single automated equipment: Refers to standalone equipment that are capable of carrying out one or more functions and they are usually customized according to the customers' requirements. Its offerings of single automated equipment include (i) material handling equipment, (ii) assemble equipment, as well as (iii) inspection and measurement equipment.
- **Production line systems:** Refers to a self-contained system that is made up of several automated equipment to carry different tasks.

Greatech first expanded into the area of production line systems in 2017, whereby the first automated production line manufactured was for First Solar to manufacture solar modules. Since the value for production line systems is higher than that of a single automated machine; therefore, the revenue contribution from production line systems has outstripped the revenue contribution from single automated equipment beginning FY17 and has remained the same ever since (refer to Figure 2).

Since Greatech ventured into the assembling of production lines in FY17, the production line systems segment has been the largest revenue contributor.



Source: Company, PublicInvest Research

Table 1 : Greatech's Single Automated Equipment (SAE) Offerings

Times of CAE	Description				
Types of SAE Material handling equipment	Description				
Loading and unloading equipment to handle solar wafer	 Motion controller to automate and perform movements and functions Visual inspection Transfer of solar wafer 				
Loading and unloading equipment to handle semiconductor wafer	 Pick and transfer semiconductor wafer using robotics Code reading for identification Align wafer position 				
Robotic handling equipment	 Scalable, for production capacity expansion Programmed to handle solar modules of different sizes Vision inspection to aid in precise placement positioning Can be installed in existing lines 				
Pick and place equipment	 Pick and place mechanism to handle sealing materials Sealing materials are used to prevent water from permeating smart devices 				
Assembly equipment					
§ Feeding mechanism to put parts into smart devices					
Inspection and measurement equipment					
§ Inspect and measure the height of smart device's home button					

Source: Company

Current assembling facilities are located in Bayan Lepas, Penang and Kulim, Kedah.

Acquired a plot of land in Batu Kawan to construct a new assembly plant.

Greatech currently has assembling facilities located in both Bayan Lepas, Penang as well as Kulim, Kedah, measuring 31.4k sqft (referring to working floor space only) and 53.2k sqft respectively. The assembly facilities in Kulim are mainly to support First Solar, as the latter's manufacturing facility is in Kulim.

Greatech has also purchased a plot of land in Batu Kawan to construct another assembly facility of c.130k sqft, mainly for the relocation of its assembly facility

Began business dealings with First Solar in 2008 but only began supplying production lines to First Solar after inking the MEPA in 2017.

Cadmium telluride (CdTe), a type of thin film technology, is the second most prevalent PV technology after C-Si.

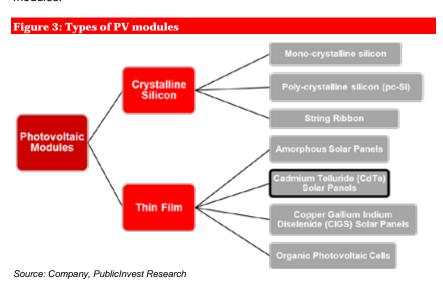
in Kulim to this new space, which should take up close to 100k sqft of the floor space. The remaining 30k sqft will be earmarked for the Group's future expansion and the new assembly facility is expected to be ready in January 2021. Consolidating its Kulim operations back to Batu Kawan could result in c.RM900k rental savings per annum. However, we reckon that there might be a change of plans, considering that Greatech might need the extra capacity to cater for additional orders that it has secured.

Investment Merits

Proxy to the growing solar photovoltaic (PV) technology. Greatech's history with First Solar can be traced back to year 2008, when the Group first diversified into the solar sector by supplying manual handling equipment and tools to First Solar. Later in 2017, Greatech inked a Master Equipment Purchase Agreement (MEPA) with First Solar, for the sale of production line systems for solar modules, of which the contract will last until end-December 2021.

PV technology can be broken down into two categories, including (i) crystalline silicon (c-Si) and (ii) thin film. Cadmium telluride (CdTe) based PV module is a type of thin film technology and is the second most prevalent PV technology in the market, after c-Si. We also highlight that Greatech's largest client, First Solar, is a market leader in terms of the manufacturing of CdTe PV panels. According to the Office of Energy Efficiency & Renewable Energy, CdTe solar cells have a global market share of 5%. While its global market share might pale when compared to c-Si's dominating global market share of c.90%, we believe that adoption rate for CdTe solar panels should be promising for the coming years, considering that it is more cost effective than that of crystalline-silicon solar panels, coupled with declining solar prices and rising PV installed capacity globally supported by the increasing use of renewable energy.

Thin-film solar cells like CdTe PV modules have always been inferior to c-Si solar cells in terms of efficiency. However, the continuous R&D effort from the thin-film solar cell makers over the years has led to improvement in efficiency. First Solar claims that its Series 6 solar modules have a solar conversion efficiency of more than 17% and produce more watts per connection when compared to a comparable C-Si solar panel. Under superior temperature coefficient, spectral response and shading behaviour, First Solar's Series 6 modules can produce 8% more energy per watt than conventional C-Si modules.



Renewable-based energy capacity is expected to grow by 50% between year 2019 to 2024, of which 60% of the growth will come from solar PV segment.

According to the International Energy Agency, the global renewable-based capacity is set to grow by 50% between year 2019 to 2024, of which 60% of the growth will be contributed by the solar PV segment. With that, we believe Greatech is well positioned to capture the growth in the solar PV segment,

Demand for Series 6 continues to hold up well, backed by 2.6GW worth of net bookings YTD, bringing total contracted backlog to 11.9GW.

Made inroads to the EV battery and medical segment, to mitigate its high customer concentration risk.

Supplying battery pack assembly line to Lordstown Motors.

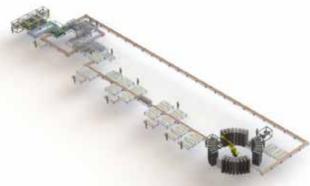
through its indirect exposure via First Solar, by supplying more production lines to First Solar.

First Solar's plans not wavered by Covid-19. Although the Covid-19 pandemic has caused economic uncertainty in the global markets, however, the demand for First Solar's Series 6 products continue to hold up well. The robust demand is backed by YTD bookings of 2.6GW bringing YTD total contracted backlog to 11.9GW. With that, First Solar is determined to maintain its capital expenditure plans unchanged at USD450m-550m for 2020, to continue ramping up its Series 6's capacity. As such, we believe sales contribution from First Solar will remain stable. On a side note, to date, First Solar has cumulatively shipped out 25GW worth of PV modules.

Diversifying into EV battery and medical sector. Considering its heavy reliance on the solar industry, Greatech has made inroads into the EV battery and medical device segment to mitigate its high customer concentration risk. For the EV battery segment, Greatech is involved in the R&D of module production line, packaging production line as well as motor production line, of which the R&D activities have completed and is ready to be sold to prospective buyers. The EV battery segment has started contributing to the Group, albeit still small at this moment, as Greatech is only supplying standalone machines to the EV car manufacturer currently.

On a brighter note, Greatech has recently clinched an order from Lordstown Motors Corp for the supply a single battery pack assembly line. Lordstown Motors is an Ohio-based automobile startup backed by General Motors that produces electric pick-up trucks. Based on the outstanding orderbook that Greatech revealed in its 2QFY20 results of RM295m, we estimate the contract value for this assembly line to be approximately RM100m. We gather that Lordstown Motors' manufacturing facility in Ohio measures 6.2m sqft, while the battery pack assembly line supplied by Greatech is only approximately 1.3k sqft in size. On top of that, given Lordstown Motors' CEO's ambitious plans to introduce other EVs like electric SUVs and electric midsize pickups starting from year 2022 onwards, we believe that Greatech could potentially ride on Lordstown Motors' growth and supply additional production lines to the EV pickup truck maker as it expands.

Figure 4: Battery Pack Assembly Line



Source: Company

Expecting Greatech to win additional contracts from Lordstown Motors, as a result of the latter's stronger-than-expected pre-order sales.

Working on securing new clients in the EV battery space.

Lordstown Motors recently disclosed that it has secured approximately 40k preorder units for its Endurance model, far surpassing its initial target of selling 20k unit in 2021. We reckon that the better-than-expected market acceptance could translate to additional sales orders for Greatech, as the existing production line ordered might not be sufficient to produce ample battery packs to cater for the overwhelming orders. Not to mention that Greatech is the sole supplier of battery pack assembly line for Lordstown Motors.

Greatech is also working on securing three other prospective clients in the EV battery segment and we believe that the recent job win from Lordstown Motors will help to pave way for subsequent new orders that are of similar job scope.

Involves in the provision of automated solutions for various medical devices, such as the ENfit assembler, diabetes test kit and etc.

Nevertheless, we think that the contribution from the EV battery segment could expand going forward, as Greatech gain more traction with its new US-based client that is still undergoing capacity expansion. We also highlight that production lines systems are much higher in value as opposed to the single automated equipment.

As for the medical device sector, its R&D project is for the provision of automated solutions for the manufacturing of various medical devices, such as the ENfit assembler, diabetes test kit, safety IV catheter, metered dose inhaler and safety syringe. The Group has only received small orders for the medical-related equipment thus far but we believe that the contribution from this segment should come in stronger in future, given the fact that the incumbents are mostly large corporations operating in the US and Europe. This means Greatech has cost competitive advantage against its peers and we reckon that the Group could potentially capture a larger market share. The stringent requirements that Greatech has to adhere to also created a significant barrier to entry.

Figure 5: Automated ENfit Assembler



Source: Company

Assembling loader-unloader equipment for the semiconductor industry.

Opening new offices in various locations to serve different clientele.

Exposure to the semiconductor industry. Despite Greatech's focus on the EV battery and medical device segment currently; however, the Group is not neglecting the semiconductor segment as it is currently building loader-unloader equipment to serve the semiconductor market. Aside from that, Greatech also has another product in the pipeline that serves the semiconductor space, which is a test handler for facial recognition sensors used in the smartphone and mobile industry. We expect this new project to only start contributing in FY21F.

Expanding its reach. While having good product offerings are of great importance to the Group, Greatech also acknowledges the significance of being close to its customers to make its presence felt and to open up more opportunities for the Group. Therefore, Greatech has planned to establish offices in Detroit, Chicago and Arizona to cater to different segments that the Group is aiming to focus on. The soon-to-be established offices will act as a sales office and also to provide service support to its customers.

- **Detroit:** Cater to the EV battery segment
- **Chicago:** Cater to the medical device segment
- Arizona: Cater to the semiconductor and consumable segment

Apart from the sales offices in US, Greatech also have plans to establish another office in Germany by 3QCY21 to seek more opportunities for its automation solutions business.

Talent pool serving as the backbone of the Group. Having a ready talent pool is crucial to continue driving Greatech's growth as these qualified individuals, especially its design engineers, are responsible in crafting out high quality single automated equipment and production lines. As such, Greatech

Committed to groom new talents, each engineer in Greatech is given an average of 44.6 training hours per year.



remains committed in grooming young talents.

Under its Young Engineer Program Enrolment, the Group has hired and groomed a total of 35 fresh graduate engineers in year 2019. YTD, the Group has hired a total of 32 young engineers under this program, and is looking to hire another 10 engineers by the end of 2020.

Each engineer in Greatech is given an average of 44.6 training hours per year, which is higher than the industry average. We believe the industry average is c.30 training hours per year. This signifies its dedication in training young talents. An Innovation Council has also been introduced to inspire its engineers to unleash their inner potential and to expand their capabilities.



Source: Company

Main market transfer. Greatech made its debut on the ACE Market of Bursa Malaysia on 13th June 2019 and has announced proposal to migrate to the Main Market on the 11th August 2020. The Group has achieved an aggregate PAT of RM103.1m between FY17 to FY19, surpassing the RM20m minimum threshold set out by Bursa Malaysia. The proposal for Main Board migration has been submitted to the authorities for approval and we are of view that the transfer should bode well for Greatech, making the stock more investable and improving participation from institutional investors.

Financial Highlights

Revenue growth to continue. Greatech's revenue has been consistently growing every year at an impressive CAGR of 78.2% between FY15 and FY19. Revenue growth started accelerating in FY17 when Greatech expanded into the manufacturing of production line systems, which carries higher value as compared to its existing business of automated single equipment. We foresee Greatech's revenue growth to continue, albeit at a lower CAGR of 39.3%, underpinned by the Group's continuous effort to expand and serve more industries.

As we have noted earlier, Greatech has secured orders for both the EV battery and medical device segment in FY20F. However, we believe that more meaningful contribution from these orders will only kick in in FY21F. In our view, the battery storage segment is set to experience exceptionally strong growth in FY21F, supported by the existing production line order secured from Lordstown Motors, as well as an additional order of production line that we reckon it will likely secure, in light of the better-than-expected market acceptance for Lordstown Motors' EV pickup trucks and also bearing in mind that Greatech is Lordstown Motors' sole supplier of battery pack assembly line.

We estimate the contract value of the potential new order from Lordstown Motors to be similar to that of the existing battery pack assembly line order. We have also factored in the potential new order from Lordstown Motors' in our FY21F revenue forecast. Greatech has also been working on securing more customers within the few industries that it serves. Should these prospective

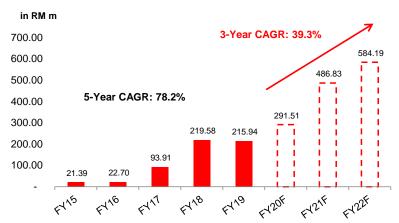
Announced proposal to migrate to the Main Market on 11th August 2020.

Expect revenue to continue growing at a 3-year CAGR of 39.3%, supported by its effort to expand and serve more industries.

Meaningful contribution from the EV battery and medical device segment will only kick in in FY21F.

clients come on-board, we believe that the growth in its revenue could potentially be stronger.

Figure 7: Greatech's Revenue, Actual and Forecasts, FY15 – FY22F



Source: Company, PublicInvest Research

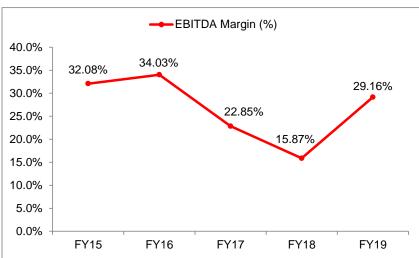
Superior margins. Greatech's EBITDA margins ranged between 29% and 35% historically, with the exception of FY17 and FY18. The dip in EBITDA margins in FY17 to 22.9% was caused by an inventories write off of RM2.9m, coupled with a provision of warranties totaling to RM6.9m.

In FY18, the EBITDA margins slumped further to 15.9% due to the higher direct material and component costs. as This was because a huge portion of its secured orders were in the fabricating and assembly stage where it incurred higher component and material costs. These orders were only at the designing stage back in FY17, hence it only incurred minimal direct labor and production overhead costs.

Greatech's EBITDA margin has since recovered from its trough to 29.2% in FY19. We expect this trend to continue and based on our projections, Greatech's EBITDA margins for FY20F, FY21F and FY22F should recover to 31.7%, 32.5% and 33.0% respectively. The growing margin will be supported by Greatech's continued focus on providing production line systems for various industries as the higher level of customization would result in better margins. Apart from that, we opine that Greatech's recent medical-related job win could also help lift margins as orders related to the medical device sector tend to be more lucrative, considering its stringent requirements.

Expect EBITDA margins to continue trending higher in the coming years, eventually recovering to 31.7%, 32.5% and 33.0% in FY20F, FY21F and FY22F.

Figure 8: Greatech's EBITDA Margins, FY15 – FY19



Source: Company, PublicInvest Research

As at 2QFY20, it is sitting on a cash pile of RM193.2m, translating to 30.9sen per share.

Satisfactory results in 2QFY20 despite the disruptions caused by the pandemic.

Sturdy balance sheet. Greatech is in a healthy financial position with a strong balance sheet as the Group is sitting firmly on a cash pile of RM193.2m (with a cash balance of RM18.5m and short term funds amounting to RM174.4m) as at 2QFY20. Net of its total borrowings of RM19.3m, Greatech is in a net cash position of RM173.9m, or 30.9sen per share. We opine that this cash will serve as a solid base and allows the Group weather through any challenging and uncertain times.

Resilient business. The Covid-19 pandemic that swept across the globe has caused disruption in various industries. Having said that, Greatech was still able to deliver satisfactory performance in 2QFY20 despite running at a reduced capacity of 50% capacity until the 28th of April due to the implementation of Movement Control Order in Malaysia. Revenue was up 6.6% QoQ to RM56.2m as the orders for the EV battery and medical sector has started contributing; however net profit was down slightly by 4.6% QoQ to RM17.6m due to an unrealized loss on foreign exchange, which is generally not related to its day-to-day operating activities. Stripping out the foreign exchange effect, its core net profit was flat QoQ at RM18.0m, indicating a resilient business during tough economic condition.

Global cumulative installed solar PV capacity has been growing at a CAGR of 35.8% from year 2010 to 2019.

Covid-19 pandemic will unlikely cause a huge blow to the global PV market, expecting only a 4% decline YoY in terms of new installations.

Thin film solar PV market will grow by a CAGR of 23% from year 2020 to 2025.

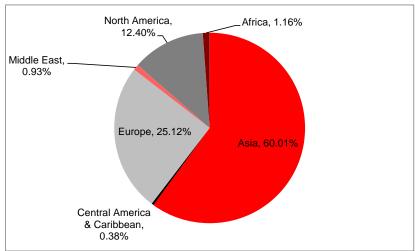
Industry Outlook

While Greatech operates within the industrial automation industry, however, given its large exposure to the PV segment currently, and its focus on the EV battery sector, our assessment on the industry will largely discuss on the prospects of the PV sector and EV battery sector.

Photovoltaic (PV) Sector:

Solar energy is the most popular source of renewable energy in the world as it is the least expensive and most affordable source of energy for extraction and conservation. As a result, the global cumulative installed solar PV capacity has been growing at a CAGR of 35.8% from year 2010 to year 2019. As at 2019, the total installed solar PV capacity in the world has reached a whopping 633GW, mainly dominated by Asia, with a share of 330.1GW.





Source: International Renewable Energy Agency (IRENA). PublicInvest Research

The initiation of China's national feed-in tariff (FIT) support scheme in 2011 has accelerated the growth of installed PV capacity in China, allowing the country to dethrone US from its number one spot in the solar industry. However, China entered into the negative growth territory in terms of the PV installation in 2018 (see figure 10), after its government began slashing subsidies for solar projects that are of utility-scale.

The slowdown in China back in 2018 and 2019 was neutralized by the surge in PV deployment outside of China, due to the emergence and revival of solar projects in countries like Vietnam and Spain, as well as the lower cost of installing PV capacity. Based on the data provided by BloombergNEF (BNEF), the cost of installing per MW of PV capacity fell by 12% in 2018, resulting in PV deployment growth outside of China.

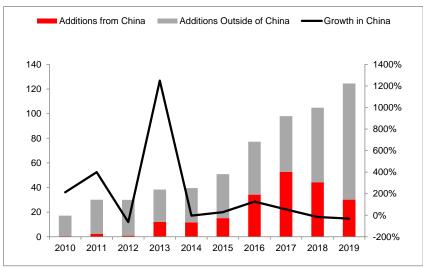
The Covid-19 outbreak has caused major disruptions across different industries across the world, however, SolarPower Europe reckons that the current Covid-19 pandemic is unlikely to cause a huge blow to the global PV market, projecting only a 4% YoY decline to 112GW in new installations for year 2020, as markets have begun to reopen and gradually recover from the Covid-19 economic shock. In fact, the investment in renewable energy could act as a powerful tool to spur economic recovery as it will lead to the creation of new jobs and boost economic activities.

Given the encouraging outlook of the overall PV sector, Mordor Intelligence has projected for the thin film solar PV market to grow by a CAGR of 23% from year 2020 to 2025, supported by factors like (i) lower PV module prices as compared to the conventional silicon-based modules and (ii) better

Greatech is well positioned to capture the growth in the thin film solar PV market.

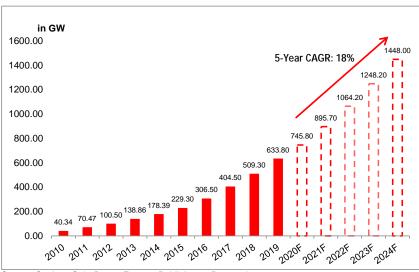
technological advancement that would improve the efficiency of the thin film solar cells. Being the largest CdTe solar panel maker in the world, First Solar is well positioned to capture the growth in the PV sector and being a long-time partner of First Solar, we are optimistic that Greatech would also benefit from its exposure to the PV market via First Solar. We highlight that each line supplied by Greatech is capable of producing 1GW worth of solar panels.

Figure 10: PV Installation in China vs Outside of China, 2010 - 2019



Source: National Energy Administration of China, Statista. PublicInvest Research

Figure 11: Global PV Installation, 2010 – 2024F



Source: Statista, SolarPower Europe. PublicInvest Research

EV Battery Segment:

Greatech had in recent months diversified into the EV battery segment, which is yet another industry with promising outlook in the coming years, as automakers begin to phase out vehicles powered by internal combustion engines (ICE), coupled with regulatory pushes by government that favours EV vehicles. With decarbonizing being a priority for many nations, the speed of EV adoption is vital for the reduction of carbon footprint.

According to a study conducted by Deloitte, the growing electric mobility fleet is expected to reach 21m units in 2030, from a mere 2m units in 2018. By then, 70% of the total EVs sold would be for battery EVs, while plug-in hybrid EVs will account for the remaining 30%.

EV battery segment is expected to continue growing, as automakers phase out ICE vehicles, coupled with regulatory pushes by government that favours EV vehicles.

Global EV component market is expected to grow by a CAGR of 29.4%, reaching USD157.4bn in 2025.

Aside from the growing number of EV expected to be seen on the roads by 2025, the ResearchAndMarkets.com has projected for the global EV component market to grow by a CAGR of 29.4%, reaching USD157.4bn in 2025, from a market size of USD22.2bn in 2018. The EV component market can be further broken down into various categories as depicted in *Figure 12*.

Vehicle Interface Control Module

Power Distribution Model

EV Supply Equipment

EV Components

Source: ResearchAndMarkets.com, PublicInvest Research

DC-DC

EV battery market is expected to grow to a size of USD116bn by 2030.

The battery pack of an EV is analogous to that of the fuel tank of a conventional vehicle that uses an internal combustion engine. Note that the battery pack is the most expensive component of an EV, accounting for c. 57% of the total production cost of an EV back in 2015. According to BNEF, an EV battery was priced above USD1,100/kWh back in 2010, but has fallen to as low as USD156/kWh in 2019, on account of growing order sizes as well as lower manufacturing costs. BNEF projects that the prices for EV batteries will fall further in the coming years, reaching USD100/kWh in 2023 and potentially lowered to USD61/kWh by 2030. Lower EV battery prices would result in more affordable EV vehicles and the improved economies of scale is expected to grow the EV battery market to a size of USD116bn by 2030.

Management

High Voltage

Heavily reliant on First Solar, c.75% of its FY19 revenue is contributed by First Solar.

Defects can hurt Greatech's relationship with its clients as well as tainting its reputation.

Investment Risks

- i) Customer concentration risk. The high contract value of production lines supplied by Greatech to First Solar has resulted in Greatech being rather dependent on First Solar. We highlight that close to 75% of the revenue generated by Greatech in FY19 was contributed by First Solar. However, we are not overly concerned on this as the Group has since diversified into the other sectors recently, ie: EV battery segment and medical device segment. We expect the revenue contribution from these three major segments to be more evenly distributed eventually, as Greatech continue to expand its client base in the energy storage and medical device market.
- ii) Product risk leading to claims. Greatech is subjected to product liability claim risk as they are bound by a warranty period of 24 months for any product defects on its automated equipment, while warranty related to the performance of its automated equipment is valid for 12 months. High number of defects or poor performance by its automated equipment may jeopardize Greatech's relationship with its clients and also hurt its reputation.
- iii) Fluctuation in foreign exchange rate. Considering the nature of its business and its client profile, Greatech is exposed to foreign exchange risk, as a lion-share of its revenue is denominated in USD. Some of Greatech's goods and services are sourced outside of Malaysia and are transacted in currencies other than the Ringgit. The USD-denominated revenue received has exceeded the natural hedge provided by its USD-denominated purchases and therefore Greatech manages and minimizes its currency exposure by entering into forward foreign exchange contract. However, this does not provide any assurance that foreign exchange fluctuation would not impact the Group's financial performance.



Valuation

We like Greatech for its exposure to the PV, energy storage and medical device sector, which is a new change to the typical areas served by our local automated test equipment (ATE) makers, ie: semiconductor and telecommunication industry. In addition to that, sectors that Greatech is exposed to, especially the PV and medical device sector, are relatively more stable, in contrast to the semiconductor industry.

We initiate coverage on Greatech with an *Outperform* call, ascribing a P/E multiple of 40x to its FY21F EPS of 22.0sen per share, with a TP of RM8.80. The P/E multiple of 40x also implies a PEG ratio of 0.83, versus its local closest peers' average PEG ratio of 1.90. We see the valuation justified, considering its 3-year CAGR of 47.5%, coupled with its niche exposure to the PV, energy storage and medical device sector that can help the Group ride out any cyclical swing better than the other local ATE players.

Table 2: Peer Comparison

Company	Share Price	Market Cap	EPS (Sen)		P/E		ROE (%)	
Company	@ 9 Oct (RM)	(RM m)	FY20F	FY21F	FY20F	FY21F	FY20F	FY21F
Greatech Technology	6.80	42,568.00	14.0	20.0	48.57	34.00	0.0%	36.5%
Pentamaster Corporation	5.16	36,755.56	11.0	15.0	46.91	34.40	20.9%	16.1%
Vitrox Corporation	12.96	61,164.56	22.0	28.0	58.91	46.29	17.8%	20.5%
MI Technovation	4.26	31,822.20	9.0	13.0	47.33	32.77	16.7%	15.7%

Source: Bloomberg, PublicInvest Research



KEY FINANCIAL DATA

Revenue	INCOME STATEMENT DATA					
Cost of sales 174.3 143.1 185.1 300.9 Cost of sales 1774.3 143.1 185.1 1300.9 Cost of sales 1774.3 143.1 185.1 300.9 Cost of sales 1774.3 143.1 185.1 300.9 Cost of sales 1774.3 143.1 185.1 1300.9 Cost of sales 1775.5 10.0 13.4 22.4 Cost of sales 1775.5 145.5 145.5 Effective Tax Rate (%) 0.4 9.2 9.5 9.5 9.5 145.	FYE Aug (RM m)	2018A	2019A	2020F	2021F	2022
Gross Profit 45.2 72.9 106.4 186.0	Revenue	219.6	215.9	291.5	486.8	584.2
Other Gains / (Losses) 7.5 10.0 13.4 22.4 Finance Costs -0.6 -0.9 -1.0 -1.1 Pre-tax Profit 31.9 57.6 86.8 152.3 Income Tax -0.1 5.3 -8.2 -14.5 Effective Tax Rate (%) 0.4 9.2 9.5 9.5 Minorities 0.0 0.0 0.0 0.0 0.0 Net Profit 31.7 52.3 78.5 137.8 Growth Revenue 134% -2% 35% 67% Gross Profit 34% 61% 46% 75% Net Profit 34% 61% 46% 75% Succeeding The Company, Publicitivest Research estimates ALANCE SHEET DATA FYE Aug (RM m) 2018A 2019A 2020F 2021F 2 Property, Plant & Equipment 35.5 37.5 44.7 51.4 Cash and Cash Equivalents 65.0 217.9 287.5 416.3 68.2 prepayment 36.6 30.2 58.9 60.7 61.2 Total Assets 152.4 344.6 433.7 597.1 Payables 36.5 29.1 37.8 61.9 Borrowings 8.1 19.1 21.0 22.5 Deferred tax 0.0 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 135.2 Shareholder's Equity RATIOS FYE Aug 2018A 2019A 2020F 2021F 2 Shareholder's Equity 69.9 195.6 274.1 411.9 1000 2000 2000 2000 2000 2000 2000 200	Cost of sales	-174.3	-143.1	-185.1	-300.9	-356.
Finance Costs	Gross Profit	45.2	72.9	106.4	186.0	227.
Pre-tax Profit 31.9 67.6 86.8 162.3 Income Tax	Other Gains / (Losses)	7.5	10.0	13.4	22.4	26.
Income Tax	Finance Costs	-0.6	-0.9	-1.0	-1.1	-1.
Effective Tax Rate (%) 0.4 9.2 9.5 9.5 Minorities 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Pre-tax Profit	31.9	57.6	86.8	152.3	186.
Minorities 0.0 0.0 0.0 0.0 0.0 0.0 Net Profit 31.7 52.3 78.5 137.8 Growth Revenue 13.4% -2% 35% 67% 67% 676% 134 66% 65% 50% 76% 135% 135% 135% 135% 135% 135% 135% 135	Income Tax	-0.1	-5.3	-8.2	-14.5	-18.
Net Profit 31.7 52.3 78.5 137.8	Effective Tax Rate (%)	0.4	9.2	9.5	9.5	10.
Growth Revenue 134% -2% 35% 67% Gross Profit 34% 61% 46% 75% Net Profit 66% 65% 50% 76% Ource: Company, Publichivest Research estimates ALANCE SHEET DATA FYE Aug (RM m) 2018A 2019A 2020F 2021F 2 Property, Plant & Equipment 35.5 37.5 44.7 51.4 Cash and Cash Equivalents 65.0 217.9 287.5 416.3 Receivables, deposits and 21.6 30.2 40.8 68.2 Property, Plant & Sand 20.2 58.9 60.7 61.2 Total Assets 152.4 344.6 433.7 597.1 Payables 36.5 29.1 37.8 61.9 Borrowings 8.1 19.1 21.0 22.5 Deferred tax 0.0 3.1 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 Total Equity and Liabilities 152.4 344.6 433.7 597.1 Total Equity engage 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A N.A	Minorities	0.0	0.0	0.0	0.0	0.
Revenue	Net Profit	31.7	52.3	78.5	137.8	167.
Gross Profit 34% 61% 46% 75% Net Profit 66% 66% 65% 50% 76% 76% Net Profit 66% 65% 50% 76% 76% Net Profit 66% 66% 65% 50% 76% 76% Net Profit 66% 65% 50% Net Profit 66% 65% Net Profit 66% Net Profit 66% 65% Net Profit 66% 65% Net Profit 66% 65% Net Profit 66% Net Profit 66% 65% Net Profit 66% 65% Net Profit 66% 65% Net Profit 66% Net Pro	Growth					
Net Profit 66% 65% 50% 76% Net Profit 66% 66% 65% Net Profit 66% 65% 50% 76% Net Profit 66% 66% 65% Net Profit 66% 66%	Revenue	134%	-2%	35%	67%	20%
SALANCE SHEET DATA	Gross Profit	34%	61%	46%	75%	239
SALANCE SHEET DATA 2018A 2019A 2020F 2021F 2 Property, Plant & Equipment 35.5 37.5 44.7 51.4 51.4 Cash and Cash Equivalents 65.0 217.9 287.5 416.3 31.2 Receivables, deposits and prepayment 21.6 30.2 40.8 68.2 Other Assets 30.2 58.9 60.7 61.2 Total Assets 152.4 344.6 433.7 597.1 Payables 36.5 29.1 37.8 61.9 Borrowings 8.1 19.1 21.0 22.5 Deferred tax 0.0 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 ource: Company, Publicinvest Research estimates	Net Profit	66%	65%	50%	76%	229
FYE Aug (RM m) 2018A 2019A 2020F 2021F 2 Property, Plant & Equipment 35.5 37.5 44.7 51.4 51.4 Cash and Cash Equivalents 65.0 217.9 287.5 416.3 31.2 Receivables, deposits and prepayment 21.6 30.2 40.8 68.2 Other Assets 30.2 58.9 60.7 61.2 Total Assets 152.4 344.6 433.7 597.1 Payables 36.5 29.1 37.8 61.9 Borrowings 8.1 19.1 21.0 22.5 Deferred tax 0.0 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 Total Equity and Liabilities 152.4 344.6	cource: Company, PublicInvest Research estim	ates				
Property, Plant & Equipment 35.5 37.5 44.7 51.4 Cash and Cash Equivalents 65.0 217.9 287.5 416.3 Receivables, deposits and prepayment 21.6 30.2 40.8 68.2 Other Assets 30.2 58.9 60.7 61.2 Total Assets 152.4 344.6 433.7 597.1 Payables 36.5 29.1 37.8 61.9 Borrowings 8.1 19.1 21.0 22.5 Deferred tax 0.0 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.6	BALANCE SHEET DATA					
Cash and Cash Equivalents 65.0 217.9 287.5 416.3 Receivables, deposits and prepayment 21.6 30.2 40.8 68.2 Other Assets 30.2 58.9 60.7 61.2 Total Assets 152.4 344.6 433.7 597.1 Payables 36.5 29.1 37.8 61.9 Borrowings 8.1 19.1 21.0 22.5 Deferred tax 0.0 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen)	FYE Aug (RM m)	2018A	2019A	2020F	2021F	2022
Receivables, deposits and prepayment 21.6 30.2 40.8 68.2 Other Assets 30.2 58.9 60.7 61.2 Total Assets 152.4 344.6 433.7 597.1 Payables 36.5 29.1 37.8 61.9 Borrowings 8.1 19.1 21.0 22.5 Deferred tax 0.0 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 ource: Company, Publicinvest Research estimates ER SHARE DATA & RATIOS FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen)	Property, Plant & Equipment	35.5	37.5	44.7	51.4	57.
Prepayment 21.6 30.2 40.8 68.2		65.0	217.9	287.5	416.3	578.
Other Assets 30.2 58.9 60.7 61.2 Total Assets 152.4 344.6 433.7 597.1 Payables 36.5 29.1 37.8 61.9 Borrowings 8.1 19.1 21.0 22.5 Deferred tax 0.0 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 ource: Company, PublicInvest Research estimates PER SHARE DATA & RATIOS FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A <t< td=""><td></td><td>21.6</td><td>30.2</td><td>40.8</td><td>68.2</td><td>81.</td></t<>		21.6	30.2	40.8	68.2	81.
Payables 36.5 29.1 37.8 61.9 Borrowings 8.1 19.1 21.0 22.5 Deferred tax 0.0 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 FOURCE: Company, PublicInvest Research estimates PER SHARE DATA & RATIOS FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A		30.2	58.9	60.7	61.2	60.
Borrowings 8.1 19.1 21.0 22.5 Deferred tax 0.0 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 Fotal Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 Fource: Company, PublicInvest Research estimates	Total Assets	152.4	344.6	433.7	597.1	778.
Deferred tax 0.0 3.1 3.1 3.1 Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 ource: Company, PublicInvest Research estimates PER SHARE DATA & RATIOS FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	Payables	36.5	29.1	37.8	61.9	73.
Other Liabilities 37.8 97.6 97.6 97.6 Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 ource: Company, PublicInvest Research estimates FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	Borrowings	8.1	19.1	21.0	22.5	24.
Total Liabilities 82.5 149.0 159.6 185.2 Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 Der Share DATA & RATIOS FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	Deferred tax	0.0	3.1	3.1	3.1	3.
Shareholders' Equity 69.9 195.6 274.1 411.9 Total Equity and Liabilities 152.4 344.6 433.7 597.1 FOURTH SHARE DATA & RATIOS PER SHARE DATA & RATIOS FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	Other Liabilities	37.8	97.6	97.6	97.6	97.
Total Equity and Liabilities 152.4 344.6 433.7 597.1 DER SHARE DATA & RATIOS FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	Total Liabilities	82.5	149.0	159.6	185.2	198.
PER SHARE DATA & RATIOS FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	Shareholders' Equity	69.9	195.6	274.1	411.9	579.
PER SHARE DATA & RATIOS FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	Total Equity and Liabilities	152.4	344.6	433.7	597.1	778.
FYE Aug 2018A 2019A 2020F 2021F 2 Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	ource: Company, PublicInvest Research estim	ates				
Book Value Per Share 0.1 0.3 0.4 0.7 NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	PER SHARE DATA & RATIOS					
NTA Per Share 0.1 0.3 0.4 0.6 EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	FYE Aug	2018A	2019A	2020F	2021F	2022
EPS (Sen) 5.1 11.3 12.5 22.0 DPS (Sen) N.A N.A N.A N.A	Book Value Per Share	0.1	0.3	0.4	0.7	0.
DPS (Sen) N.A N.A N.A N.A	NTA Per Share	0.1	0.3	0.4	0.6	0.
·	EPS (Sen)	5.1	11.3	12.5	22.0	26.
Payout Ratio (%) N.A N.A N.A N.A	DPS (Sen)	N.A	N.A	N.A	N.A	N.
• • • • •	Payout Ratio (%)	N.A	N.A	N.A	N.A	N.

Source: Company, PublicInvest Research estimates

ROA (%)

ROE (%)

15.2

26.7

18.2

28.6

20.8

45.4

21.6

28.9

23.2

33.5



RATING CLASSIFICATION

STOCKS

OUTPERFORM The stock return is expected to exceed a relevant benchmark's total of 10% or higher over the next 12months.

NEUTRAL The stock return is expected to be within +/- 10% of a relevant benchmark's return over the next 12 months.

UNDERPERFORM The stock return is expected to be below a relevant benchmark's return by -10% over the next 12 months.

TRADING BUY

The stock return is expected to exceed a relevant benchmark's return by 5% or higher over the next 3 months but

the underlying fundamentals are not strong enough to warrant an Outperform call.

TRADING SELL The stock return is expected to be below a relevant benchmark's return by -5% or more over the next 3 months.

NOT RATED The stock is not within regular research coverage.

SECTOR

OVERWEIGHT The sector is expected to outperform a relevant benchmark over the next 12 months.

NEUTRAL The sector is expected to perform in line with a relevant benchmark over the next 12 months.

UNDERWEIGHT The sector is expected to underperform a relevant benchmark over the next 12 months.

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