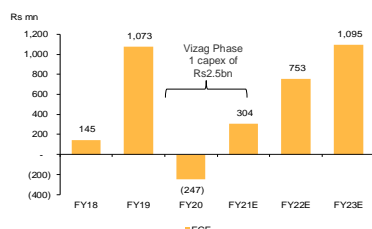


6 October 2020

India

## EQUITIES

## FCF to improve post Vizag Phase 1 capex in FY20/21



Source: Company data, Macquarie Research, Oct 2020

**SOLARA IN** Outperform  
 Price (at CLOSE, 01 Oct 2020 GMT) Rs1,093.20

Valuation - EV/EBITDA	Rs	1,680.00
12-month target	Rs	1,680.00
Upside/Downside	%	+53.7
12-month TSR	%	+53.9
Volatility Index		High
GICS sector		
Pharmaceuticals, Biotechnology & Life Sciences		
Market cap	Rsm	39,137
Market cap	US\$m	535
Free float	%	26
30-day avg turnover	US\$m	0.8
Number shares on issue	m	35.80

## Investment fundamentals

Year end 31 Mar		2020A	2021E	2022E	2023E
Revenue	m	13,218	16,376	19,230	22,581
EBIT	m	1,653	2,186	2,857	3,535
EBIT growth	%	20.0	32.3	30.7	23.7
Recurring profit	m	1,149	1,680	2,560	3,404
Reported profit	m	1,146	1,597	2,101	2,691
Adjusted profit	m	1,146	1,597	2,101	2,691
EPS rep	Rs	42.55	46.91	58.65	75.13
EPS rep growth	%	239.4	10.2	25.0	28.1
EPS adj	Rs	42.82	47.51	58.65	75.13
EPS adj growth	%	91.2	11.0	23.4	28.1
PER rep	x	25.7	23.3	18.6	14.6
PER adj	x	25.5	23.0	18.6	14.6
Total DPS	Rs	2.00	2.00	3.00	4.00
Total div yield	%	0.2	0.2	0.3	0.4
ROA	%	8.0	8.9	10.0	11.3
ROE	%	11.2	11.7	12.1	13.7
EV/EBITDA	x	13.0	13.4	10.6	8.8
Net debt/equity	%	48.7	10.9	6.5	-0.5
P/BV	x	2.6	2.4	2.1	1.9

Source: FactSet, Macquarie Research, October 2020  
 (all figures in INR unless noted)

## Analysts

Macquarie Capital Securities (India) Pvt. Ltd.



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## Solara Active Pharma (SOLARA IN)

### In it for the long haul

## Key points

- ▶ Solara is a top 3 pure-play API manufacturer in India.
- ▶ Detailed analysis of its API portfolio, Solara's long-term focus and growing presence in CRAMS suggest strong outlook even beyond FY23.
- ▶ Initiate with an Outperform rating and a Rs1,680 target price (54% TSR).

#### A steadfast long-term focus is Solara's key success mantra

Solara was formed after the demerger of human API segments of Strides Pharma and Sequent Scientific in Feb-18. It benefits from a legacy of over three decades in the API space. Solara is well placed to capitalise on the huge opportunity for Indian API companies arising from dual-sourcing and import substitution owing to robust customer relationships with a long-term focus, healthy filings and global cost leadership in key molecules like Ibuprofen. We expect Solara's strategy of working with customers on a long-term basis (50-60% contracts are long-term) rather than capitalising on short term opportunities to lead to higher wallet share among existing clients as well as help in winning new customers. As a result, we believe Solara's growth is more sustainable than some of its Indian API peers.

Solara has done 150+ regulatory filings across 75+ countries, including more than 82 Drug Master Filings (DMFs). Our detailed analysis of Solara's leading molecules reveals that Solara enjoys a solid edge in most of these. While Solara has a higher regulated market focus (76% contribution in FY20), it is evaluating the government's Production Linked Incentive (PLI) scheme (currently domestic sales are 10-12% of sales). Also, barring the recent Official Action Indicated (OAI) for Cuddalore (which our analysis suggests was largely linked to the Ranitidine NDMA impurity issue), Solara has had a spotless regulatory compliance record.

#### Major capex behind, FCF generation to significantly improve

Over the medium term, we expect Solara's top-line growth to accelerate, led by commissioning of the Vizag facility, CRAMS, expansion to new markets and ramp-up of product filings. In addition to steady growth in its legacy products, we expect it to expand share of launches done over the past few years. Solara intends to grow in CRAMS both organically and inorganically (recent Rs4.6bn equity infusion by promoters and TPG provides growth capital) to contribute 30% to sales by FY25E from 10% in FY20. Overcoming the Ranitidine recall setback, we expect Solara to build on to its ~40% EBITDA CAGR over FY18-20, to deliver 25% EBITDA CAGR over FY20-23E. With major capex of Vizag behind, we expect Solara to report strong cumulative FCF of Rs2.2bn over FY21-23E.

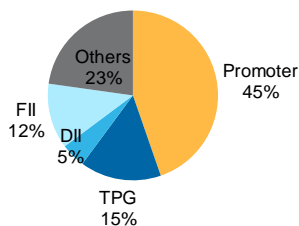
#### Solara is still among the cheapest API stocks globally

Despite scoring well on most parameters in our detailed global comparison, at 8.8x FY23E EV/EBITDA, Solara is among the cheapest API stocks globally. With strong API growth visibility, increasing importance of pure-play API suppliers, rising CRAMS contribution, an improving margin profile and a strong regulatory track record, we expect the stock to re-rate further (stock up 195% in the past one year vs. Nifty 4%). We assign Solara a 13x Sep-22 EV/EBITDA target multiple, which is still at a significant discount to most of its global and Indian API peers, and incorporate **risks like high client and portfolio concentration**. Accordingly, we assign a target price of Rs1,680 for Solara and initiate coverage with an Outperform rating. Our TP implies 12% revenue and 16% EBITDA CAGRs over FY20-30E. Our bear/bull cases derive values per share of Rs1,320/ Rs2,064.

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Shareholding pattern as of Sep-20



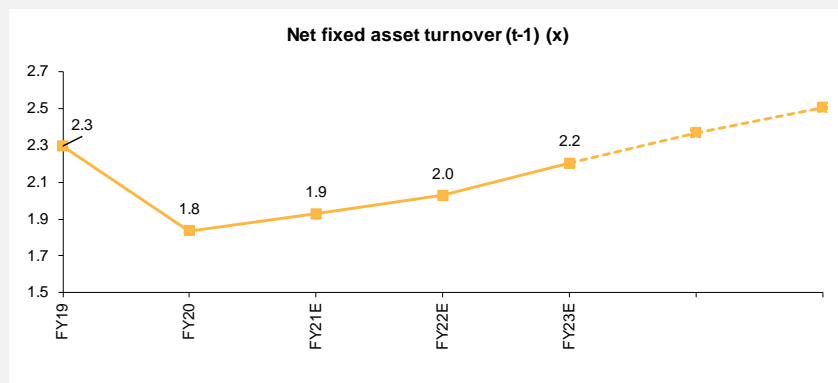
Source: Company data, Macquarie Research, October 2020

# A healthy blend of long-term focus and strong execution

## Company profile

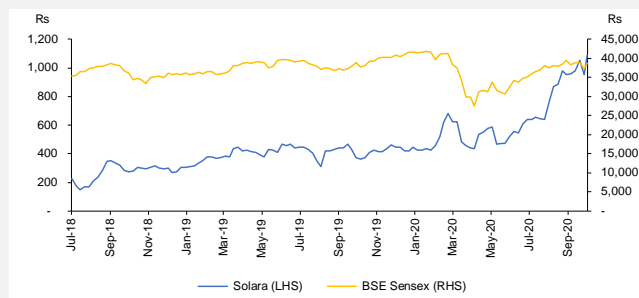
- Solara is among the top three pure-play API manufacturers in India with a commercialised portfolio of 50+ APIs. Solara benefits from a legacy of over three decades and was formed post the demerger of the human API businesses of Strides Pharma and Sequent Scientific in 2018.
- The high-volume API business of Solara is primarily focused in the therapeutic area of pain management. This division was acquired by Strides pursuant to the merger of Shasun Pharma with Strides in CY15. On the other hand, the human API business of Sequent Scientific which was demerged into Solara consists of a portfolio of niche APIs requiring a low volume of production and technological complexity. The niche API segment is undertaken pursuant to a licensing agreement for manufacturing certain APIs and through long-term contracts with global pharma companies. In our estimate, the high-volume API business constitutes ~65% of annual sales, while the niche API segment constitutes the rest.
- The company has presence in 75+ countries, with 100+ filings and 80+ products in its portfolio. As of FY20, regulated market sales contributed ~76% to Solara’s sales. Apart from US and Europe, Solara has a meaningful presence in Japan, South Korea and has made progress in China. Solara has more than 2,500 employees.

Fig 1 Fixed asset turnover to improve meaningfully as Vizag scales up



Source: Company data, Macquarie research, October 2020

Fig 2 SOLARA IN rel BSE Sensex performance



Source: FactSet, Macquarie Research, October 2020

## In it for the long haul

### We like Solara's pure-play, long term focus

We believe Solara is very well placed to capitalise on the huge opportunity for Indian API companies owing to its strong 30+ year track record, robust customer relationships with a long-term focus, cost-efficiencies, healthy DMF filings as well as a largely unblemished regulatory track record. In our view, the key drivers for Solara are:

*For Solara, 50-60% of its contracts are long-term (3-5 years).*

*In high volume APIs like Ibuprofen, Solara enjoys a global cost leadership. Incrementally, Solara is focussing on low volume, high value DMF filings and is planning 8-10 filings annually over the next 3-5 years.*

*~40% of Solara's sales are to big pharma companies and ~60% are to generic companies.*

- **Strategic focus:** One of the biggest strengths of Solara is that it is a pure play API company. Solara's strategic focus is leading to higher penetration for existing molecules. Apart from bringing in more focus, it also helps gain higher client confidence.
- **Long-term contracts lend visibility:** We like Solara's emphasis on long-term commitments and being responsible in taking price hikes. For Solara, 50-60% of its contracts are long-term (3-5 years). The company remains clear about not harping on short-term opportunities at the cost of its clients. With increased capacity, the company is in a good position to add further long-term contracts.
- **Choosing the right products:** A key strength of Solara is development and manufacturing of polymer-based APIs. Also, Solara is focussing on sterile, high potent and fermentation-based APIs. In high volume APIs like Ibuprofen, Solara enjoys a global cost leadership. Incrementally, Solara is focussing on low volume, high value DMF filings and is planning 8-10 filings annually over the next 3-5 years.
- **Strong presence in developed markets and expanding in EMs:** Two-thirds of Solara's sales are from North America and Europe. Also, the company was an early entrant in the relatively tough market of Japan. It has already started filing DMFs in China. Increasingly even ROW markets have increased their documentation requirements, thereby aiding companies with a stronger compliance track record like Solara.
- **Strong relationships with big pharma and generic pharma companies:** ~40% of Solara's sales are to big pharma companies and ~60% are to generic companies. For its key molecules, Solara has relationships with its clients for more than 15-20 years. This is demonstrated by Solara's ability to seamlessly pass on RM price hikes to its clients.
- **Cost improvement program yielding results:** Solara's cost improvement program (CIP) has been yielding results (40% EBITDA CAGR over FY18-20 on proforma basis) and the company is highly cost-competitive in most of its key DMFs. Each of its facilities manages its own P&L.
- **Robust culture of compliance:** Barring the recent OAI for Cuddalore (which, in our view, was largely linked to the Ranitidine NDMA impurity issue and Solara has since discontinued Ranitidine), Solara has had a spotless US FDA compliance track record.

Fig 3 Solara's growth strategy hinges on five levers



Source: Company data, October 2020

**Solara aims to launch at least 15 products (including product extensions) in new markets in FY21.**

**As per Solara's management, the China plus one sourcing trend is very visible and accelerating for the company. Solara is definitely having higher conversations with customers, who are looking to de-risk their supply chain.**

### A steadfast focus is Solara's key success mantra

Solara is a pure-play API manufacturer catering to global clients by largely focussing on high volume opportunities. It is one of the few listed pure-play API manufacturers in India, along with Divi's, Dishman and Neuland Labs. The company has complex chemistry capabilities including handling of catalytic hydrogenation, hydride reductions, organometallic reactions, halogenation, Grignard reaction, polymer and hazardous reactions. Based on high advocacy and supply assurance driven by strategic backward integration, we expect Solara to deliver steady growth in its base portfolio. We believe Solara's strategy of working with customers on a long-term basis rather than capitalising on short-term opportunities will lead to higher wallet share among existing clients as well as help in winning new customers. In addition to steady growth for its base products, we expect the company to expand share of product launches done in the past few years to new markets and new clients. For instance, Solara aims to launch at least 15 products (including product extensions) in new markets in FY21. We expect these to add to growth even beyond FY21. The company's focus is also on portfolio maximisation and expanding market access of existing products in LatAm, South East Asia and Africa to drive topline and margin growth.

### With conducive industry dynamics, Solara is in a sweet spot

The global API market is estimated to be US\$180bn, growing at ~6% annually. Out of the total global API market size, ~42% (US\$75bn) comprises generic APIs. Including domestic consumption, the size of the Indian API industry is ~US\$11bn. Out of this US\$11bn, US\$7bn is domestic consumption and API exports are US\$4bn. The Indian API industry ranks third globally, next to China and Italy. The foremost requirements for a formulations manufacturer from its API supplier are reliability in terms of supply chain, sustainability and cost efficiencies. Over the past few years, with the China API supply issues starting CY18, higher stringency in compliance and now with COVID-19 and geo-political tensions, the focus is shifting more towards sustainability and reliability of API suppliers versus primarily lower costs earlier. We believe the deciding factor post COVID-19 will be supply chain reliability. Increasingly, pharma companies are looking to source advanced stage intermediates from regulatory compliant facilities, which is leading to them incrementally looking at Indian and European API manufacturers. Given the cost advantage, we believe Indian API suppliers stand to benefit as formulations companies look to diversify their API suppliers. As per Solara's management, the China plus one sourcing trend is very visible and accelerating for the company. Solara is having higher conversations with customers, who are looking to de-risk their supply chain.

### Solara to further build on to its strong profitability reported since inception

Since inception in Feb-18, Solara has delivered solid 13% topline and 40% EBITDA CAGRs (FY18 numbers on a proforma basis). We note that the 13% topline CAGR reflects the hit from transition of a Top 3 molecule from B2B to B2C by one of its key clients (expected to normalise starting 3QFY21) as well as the COVID-19 lockdown impact in Mar-20. For FY21, Solara has guided for 25% YoY topline growth and has alluded to very positive demand momentum over the coming quarters. Over the medium term, we expect Solara's topline growth to accelerate by commissioning of the Vizag facility, formation of the CRAMS business, expansion of APIs to new markets/new customers and ramp-up of new product filings.

**Fig 4 Management has guided for 15% revenue and 20% EBITDA CAGRs over FY19-23E**

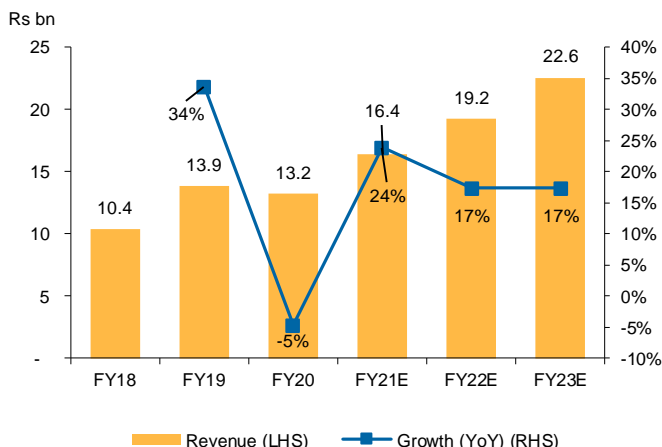
Rs bn	Management guidance			Macquarie estimates	
	FY19	FY23	FY19-23E CAGR	FY23	FY19-23E CAGR
Revenue	13.9	24.3	15%	22.6	13%
EBITDA	2.2	4.6	20%	5.0	23%

Source: Company data, Macquarie Research, October 2020

**Our gross margin estimates for FY21-23E are 170-240bps lower than 1QFY21 level of 57%.**

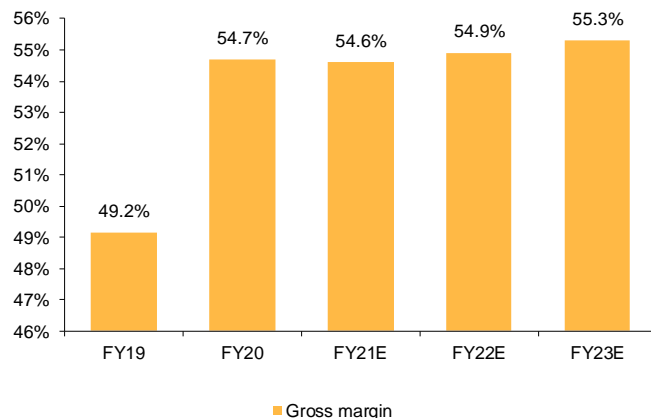
On the gross margin front, the company has a steady policy of either rationalising or raising prices for APIs which do not meet the 50% gross margin requirement. Even as we are sanguine about Solara's margins, we would highlight that Solara has mentioned that 1QFY21 gross margins benefitted from a superior product mix as the company focussed on high margin products to make up for lost sales during the lockdown (three weeks of production stoppage in Apr-20). Thus, there was a focus on gross margin-led growth in 1QFY21, which is unlikely to sustain, in our view. Hence, staying conservative, our gross margin estimates for FY21-23E are 170-240bps lower than 1QFY21 level of 57%.

**Fig 5 We build in a solid 20% topline CAGR over FY20-23E**



Source: Company data, Macquarie Research, October 2020

**Fig 6 Solara’s gross margins to be in the 54-56% range**

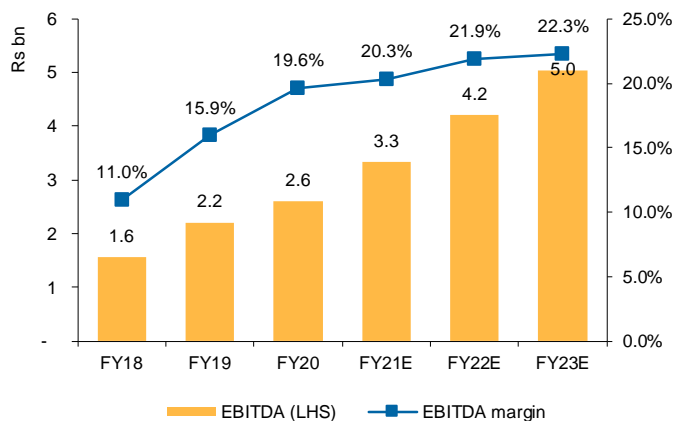


Source: Company data, Macquarie Research, October 2020

\*Proforma numbers for FY18

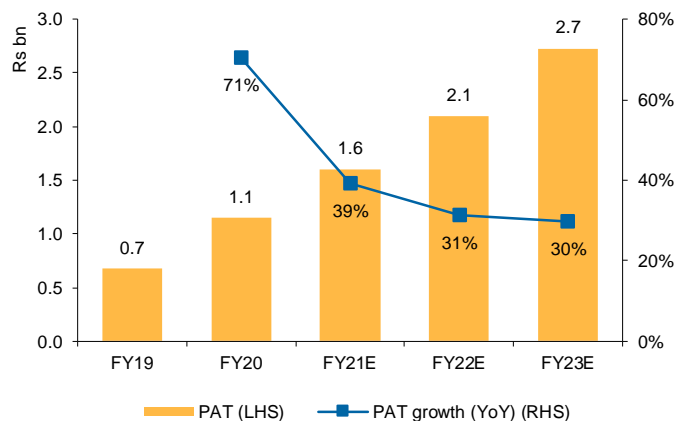
A sharpened focus on boosting presence across markets and improving efficiencies has been a major contributor to the margin uptick over the past few years. Overcoming the Ranitidine recall setback, we expect improved capacity utilisation of Vizag and Ambernath facilities, capacity debottlenecking in other facilities, steady scale up of CRAMS, higher validation batches (high margin), favourable outcomes of cost improvement programs and revenues from new products to lead to strong 25% and 33.5% EBITDA and PAT CAGR, respectively, over FY20-23E for Solara.

**Fig 7 EBITDA margin to expand 270bps over FY20-23E**



Source: Company data, Macquarie Research, October 2020

**Fig 8 33.5% PAT CAGR over FY20-23E despite higher tax**



Source: Company data, Macquarie Research, October 2020

\*Proforma numbers for FY18

**Increasing utilisation of Vizag facility to be a key catalyst**

**Having incurred a capex of Rs2.5bn in Phase 1, the Phase 1 of Vizag has gone onstream with additional 3,600 tons of Ibuprofen API capacity.**

Spread across 17 acres, Vizag is Solara’s multi-product, multi-purpose greenfield facility. As per management, Vizag would be Solara’s flagship facility in the coming years. Having incurred a capex of Rs2.5bn in Phase 1, the Phase 1 of Vizag has gone onstream with additional 3,600 tons of Ibuprofen API capacity. While the facility is largely aimed at catering to the regulated markets, Solara has just commenced sales to semi-regulated markets (where facility inspection is not required) from the Vizag facility. Solara is guiding for this facility to run at full capacity in the next 12-15 months when all regulatory audits and customer audits are completed. Currently, the facility is undergoing customary regulatory processes and partner approvals for qualification. The facility inspection by both US FDA as well as the EU regulators is pending. The company is expecting approval from the European authorities earlier than US FDA. However, due to the current travel restrictions, there is a risk of regulatory inspections getting delayed even as the company is trying for a virtual inspection. Solara also has a land bank to expand further in Vizag by building

additional blocks and further capacity expansion would be brownfield in nature. Within Phase 2 for Vizag, Solara would be adding multi-purpose API manufacturing capabilities and has designed it with modern modular design for efficiencies, expansion and flexible production campaigns. While the capex plan for Phase 2 have not been confirmed yet (likely to be announced over the next 6-9 months), it would be to augment capabilities in large-volume but campaign-based niche APIs.

**Fig 9 Post ramp-up, the Vizag facility is expected to be Solara's flagship facility**



Source: Company data, October 2020

### CRAMS to be the next growth lever for Solara

As of FY20, CRAMS contributed 10% to Solara's overall sales, up from 5% in FY19. With CRAMS, Solara largely operates in the clinical contract development and contract manufacturing (CDMO) vertical. The endeavour is to offer services across the value chain of a new chemical entity, right from the pre-clinical stage to commercialisation. Specifically, Solara aims to tap into the niche antibody drug conjugates market. Within the CRAMS business, Solara is targeting big pharma and biotech companies. Apart from reliability, compliance and technology, Solara will be harping on the fact that it has never had any breach of confidentiality. Solara has two R&D centres currently and has enough capacity to accommodate CRAMS projects. The company is also in the process of recruiting a Global Head for its CRAMS division. It intends to grow its CRAMS business both organically and inorganically to contribute 30% to overall sales in the next 5 years.

***A key catalyst for Solara would be acquisition of a quality CRAMS asset at reasonable valuation.***

The company continues to work on building its order book through a multifaceted market outreach involving its network of consultants, current relationships, legacy customers and direct marketing efforts. Pre COVID-19, Solara had an opportunity pipeline of US\$10m. We note Solara's CRAMS pipeline is growing at a stronger pace, with a 20% QoQ improvement seen in 1QFY21. Given the current small scale of Solara's CRAMS operations, we believe the initial projects would be at lower margins than company average as Solara looks to establish its credibility. However, once the business achieves scale, we expect Solara to deliver 30%+ EBITDA margins in CRAMS.

One of the key reasons of raising equity from the promoters and TPG is to look at acquisitions in the CRAMS business. A key catalyst for Solara would be acquisition of a quality CRAMS asset at reasonable valuation. Solara is not looking at a large acquisition, but rather an asset which would serve as a gateway for it to get incremental CRAMS projects. Management's primary focus for an inorganic expansion in CRAMS is in the US and Europe. However, Solara is open to making acquisitions in India, provided there is a strong customer base in the US and Europe. Also, Solara is targeting acquiring a company which would add heft to its existing CRAMS business, both in terms of scientific capabilities to bring in differentiation as well as scale. Post the CRAMS deal, the company is comfortable with stretching its net debt to EBITDA to a maximum of 2.5-3x. Considering the high gestation period in CRAMS, we find merit in Solara's endeavour to actively look out for inorganic growth in CRAMS.

*The proceeds from this Rs4.6bn fund-raise will be used for the Vizag greenfield project, increasing backward integration for key APIs, lower debt as well as inorganic expansion in the CRAMS space.*

### Equity infusion by promoters and TPG provides growth capital

In Jan-2019, the promoters (Mr. Arun Kumar and family) and global private equity player, TPG Capital, had announced an infusion of Rs4.6bn in the company. At the time of the announcement, the stock price was Rs389. Out of this Rs4.6bn, the promoters infused Rs2.6bn (6.5m warrants at a conversion price of Rs400/share) and TPG infused the remaining Rs2bn (4m warrants at a conversion price of Rs500/share). In total, 10.5m shares have been issued at an average price of Rs440 per share. Till Aug-20, the promoters had infused Rs1.95bn, while the remaining Rs650m was infused on 1 September, 2020. Similarly, TPG had invested Rs500m till Aug-20 and invested the remaining Rs1.5bn on 1 September, 2020. Post the dilution, the promoters now own 44.7% stake and TPG owns 15.4% stake in Solara. While TPG will not have any special rights and will not be classified as a promoter, it has one seat on the Board of Solara. The proceeds from this Rs4.6bn fund-raise will be used for the Vizag greenfield project, increasing backward integration for key APIs, lower debt as well as inorganic expansion in the CRAMS space. At June-20, Solara had gross debt of Rs7.1bn and net debt of Rs5.92bn. Out of the Rs7.1bn gross debt, Rs3.8bn is for funding working capital and the remaining Rs3.3bn is long term debt. With the latest conversion of warrants, Solara's net debt has reduced from Rs5.92bn at Jun-20 end to Rs3bn now.

**Fig 10 Implications of the fund raising from promoters and TPG**

	Before	After
Total no. of shares (mn)	24.7	35.8
Promoter holding (%)	37.9	44.7
TPG holding (%)	0	15.4

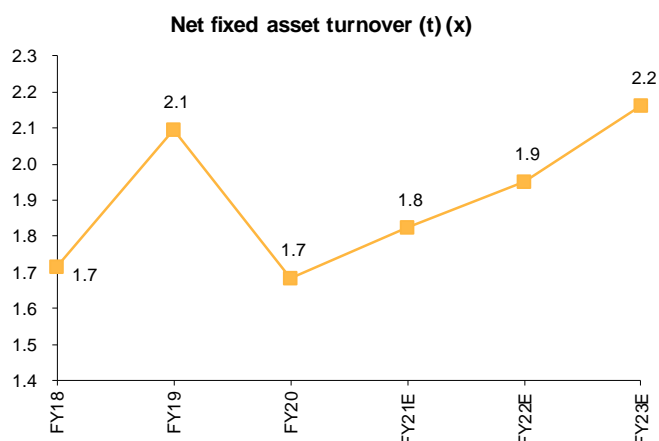
Source: Company data, Macquarie Research, October 2020

*With ramp-up of the Vizag facility, we expect Solara's fixed asset turnover to again breach 2x in FY23E.*

### Major capex behind, we expect Solara's cash generation to improve significantly

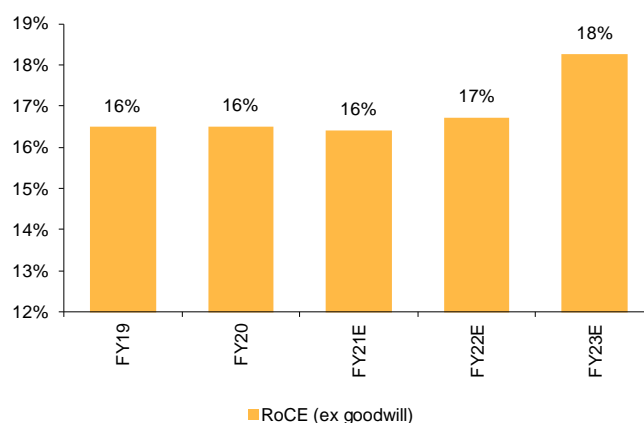
Solara's FY20 capex stood at Rs2.7bn, which includes Rs1.65bn for Vizag (Atchutapuram) Phase 1 and the balance was maintenance and de-bottlenecking capex for other facilities like Mysuru. Out of the planned Rs2.5bn capex outlay for the Vizag facility, the pending Rs850m will be incurred in FY21. There will be further capex of Rs0.8-1bn on maintenance and debottlenecking in FY21. Post FY21, we expect Solara to incur annual maintenance capex of Rs400m and Rs600m capex towards de-bottlenecking. Similar to Divi's, it embarks on new capex only after having high demand visibility. Currently, depending on its level of participation in the PLI scheme (currently, the company is evaluating the scheme), it is open to expanding the facilities on a need basis. Any further capex will be funded by internal accruals. Largely due to the substantial Vizag Phase 1 capex of Rs2.5bn, Solara's fixed asset turnover dropped from 2.1x in FY19 to 1.7x in FY20. With the ramp-up of the Vizag facility, we expect its fixed asset turnover to again breach 2x in FY23E. With bulk of the major capex behind (further major capex likely to be Vizag Phase 2, no clarity on its timelines though), we expect Solara's free cash generation to get a big boost starting FY22E.

**Fig 11 Fixed asset turnover to improve as Vizag ramps up**



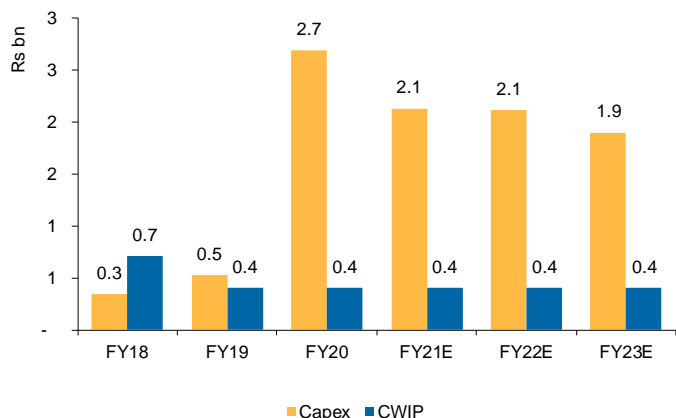
Source: Company data, Macquarie Research, October 2020

**Fig 12 RoCE (ex-goodwill) to improve to 18% in FY23E**



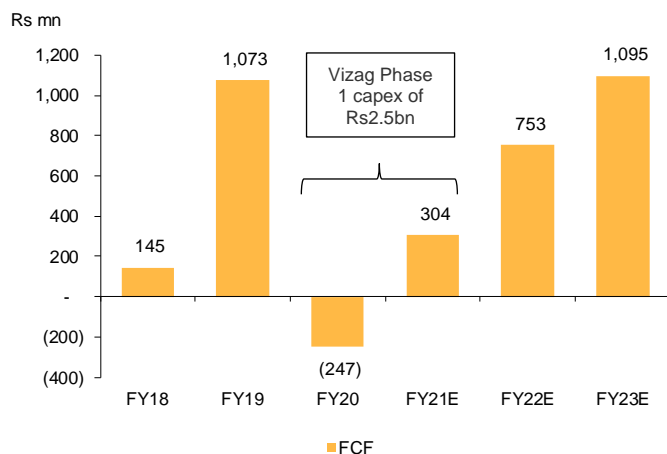
Source: Company data, Macquarie Research, October 2020

**Fig 13 We build in Vizag Phase 2 capex in FY22/23**



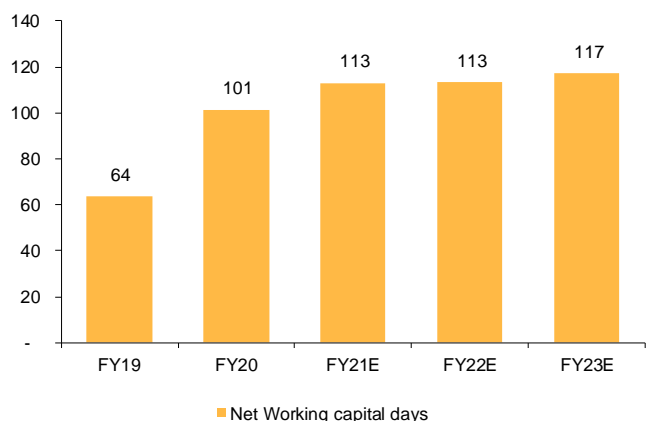
Source: Company data, Macquarie Research, October 2020

**Fig 14 FCF to improve post Vizag Phase 1 capex in FY20/21**



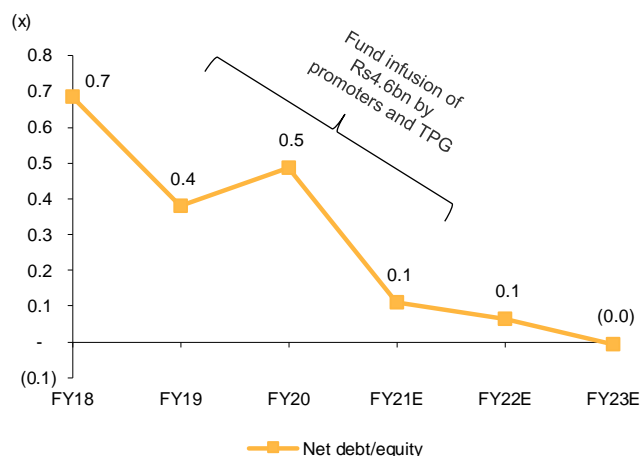
Source: Company data, Macquarie Research, October 2020

**Fig 15 We expect working capital to be at 110-120 days**



Source: Company data, Macquarie Research, October 2020

**Fig 16 Net debt to equity to decrease**



Source: Company data, Macquarie Research, October 2020

**Solara has done 150+ regulatory filings across countries, including more than 82 DMFs in the US.**

**As of 1QFY21, new products (products launched over the last 3 years) contributed 11% to Solara's topline, as compared to 7% in FY20.**

**Healthy filings across regions yet...**

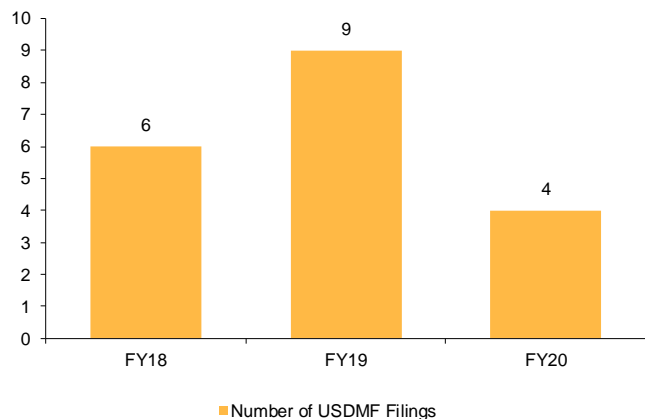
Solara has done 150+ regulatory filings across countries, including more than 82 DMFs in the US. Currently, Solara has commercialised 50+ APIs pre-dominantly in the anthelmintic, anti-malarial, anti-infective, neuromuscular insomnia, anti-psychotic hyperkalemia therapeutic areas. At present, Solara has a pipeline of 25+ molecules under various stages of development. These 25+ APIs under development are across anthelmintic, anti-malarial, beta blockers, muscle relaxants, novel oral anti-coagulants and anti-infectives. The company is incubating new technology platforms to strengthen differentiation and secure its future pipeline. Within R&D, Solara's focus is on new products under NCE-1, validation supplies, market specific and quick-to-market molecules. The aim is to develop APIs with newer technologies and re-engineer the current products with unique processes through the cost improvement program. Solara has 200 scientists working in its R&D team, across its synthetic development and analytical development teams. None of the R&D spends are capitalized. We expect Solara's R&D spends to be at 2-3% of sales over FY21-23E.

While Solara has a high number of DMF filings, the focus is incrementally more on quality of DMFs and product selection is given lot of prominence. 40% of the DMFs filed are for New Chemical Entities (NCEs), while quick to launch (Solara is the second source) contribute 40% of the filings. The remaining 20% filings are towards capitalising on market specific developments. Most of the new launches will be high-value products, with relatively lower volume. As of 1QFY21, new products (products launched over the last 3 years) contributed 11% to Solara's top line, as compared to 7% in FY20. Management intends to cross-leverage the filings in the US and Europe



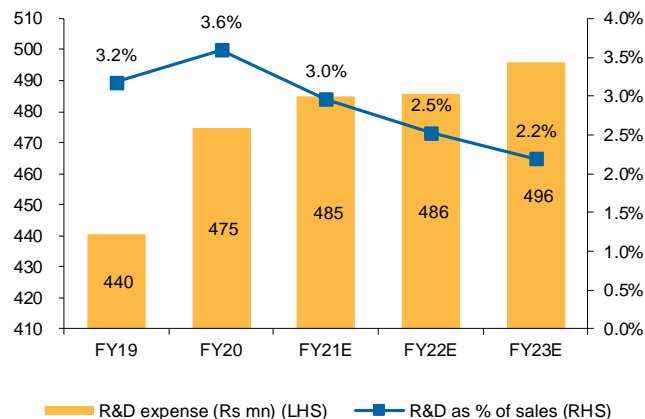
to grow in other regulated and semi-regulated markets. For instance, Solara completed market extensions for six of its existing products into nine new markets in FY20.

**Fig 17 4 US DMF filings were filed in FY20**



Source: Company data, Macquarie Research, October 2020

**Fig 18 We expect Solara's R&D spends to be at 2-3% of sales over FY21-23E**



Source: Company data, Macquarie Research, October 2020

**Fig 19 Geography-wise regulatory filings**

Geography wise filings (No.)	FY19	FY20
US DMFs	78	82
EDQM+EMA	22	27
Health Canada	13	14
TGA Australia	5	6
WHO	11	11
PMDA – Japan	8	8
Ministry of Food & Drug Safety - South Korea	12	14
<b>Total filings</b>	<b>149</b>	<b>162</b>

Source: Company data, Macquarie Research, October 2020

***We note that over the past 1.5 years, DMF filings have been a bit slow and the management is guiding for an increase in the pace of filings 2HFY21 onwards.***

### **...pace of DMF filings is an area of improvement for Solara**

In our view, one of the key areas of improvement for Solara is increasing the pace of DMF filings. We note that over the past 1.5 years, DMF filings have been a bit slow and the management is guiding for an increase in the pace of filings 2HFY21 onwards. Despite no filings in 1QFY21, the management expects to file 8-10 DMFs in FY21. Solara will start filing DMFs from its multi-purpose Vizag API unit in 2HFY21. In FY18 and FY19, Solara filed 6 and 9 DMFs respectively, while in FY20, Solara filed just 4 DMFs. While R&D capability is not an issue, production planning/capacity constraints have been an impediment. We note that the company is now taking action to ensure that new launches will not be impacting the existing portfolio. Solara has set up a dedicated team for answering any deficiencies in the DMF filings, as the swiftness of resolving these deficiencies is critical for getting the ANDA approval. Over the past few quarters, Solara has been working on various finer points like finalisation of specifications with customers and obtaining the necessary license for products not registered in India to expedite the pace of filings in FY21.

Fig 20 List of Solara's DMF filings

Submit date	API	Therapy	Indication	Global market size (US\$ bn)	High volume (Y/N)	Niche (Y/N)
7/3/1987	Ibuprofen USP	Anti-Inflammatory	Pain Reliever	6.9	Y	
7/3/1996	S-Ibuprofen	Anti-Inflammatory	Pain Reliever	6.9	Y	
6/11/1997	Ranitidine	Alimentary T. & Metabolism	Antipeptic Ulcerants	0.4	Y	
9/21/1998	Nizatidine	Gastro-Intestinal	peptic ulcer disease and gastroesophageal reflux	3.5		Y
11/30/1998	Naproxen, USP	Anti-Inflammatory	Pain Reliever		Y	
6/1/1999	Naproxen Sodium USP	Anti-Inflammatory	Pain Reliever	12.0	Y	
10/6/1999	Ranitidine Hydrochloride	Alimentary T. & Metabolism	Stomach & Intestine Ulcers	0.4	Y	
3/28/2001	Methohexital USP	CNS	Anesthesia			
7/13/2001	Ranitidine Hydrochloride, USP (Form II)	Alimentary T. & Metabolism	Stomach & Intestine Ulcers	0.4		
1/21/2003	Isradipine, USP	Cardiovascular	Hypertension to reduce risk of stroke			
7/19/2004	Gabapentin USP	CNS	Anticonvulsant or Antiepileptic	1.4	Y	
8/31/2004	Sulphazine	Ophthalmology	conjunctivitis and other superficial ocular infections			
4/8/2005	Olanzapine USP	CNS	Psychotic Disorders			Y
4/27/2005	Ibuprofen Sodium Dihydrate	Anti-Inflammatory	Pain Reliever	6.9	Y	
2/23/2006	Mefenamic Acid, USP	Anti-Inflammatory	Pain Reliever		Y	
8/7/2006	Meprobamate USP	CNS	Psychotic Disorders	0.8		Y
3/8/2007	Quinapril Hydrochloride	Cardiovascular	Hypertension	0.8		Y
5/17/2007	Cetirizine Hydrochloride Dihydrochloride USP	Respiratory	Antihistamine - Allergies	0.8		Y
11/29/2007	Sevelamer Hydrochloride	Nephrology	Kidney Dialysis			Y
6/20/2008	Cycloserine USP	Anti-Bacterial	tuberculosis & urinary tract infections		Y	
7/28/2008	Venlafaxine Hydrochloride	CNS	Psychotic Disorders			Y
8/6/2008	Methoxsalen USP	Derma	Psoriasis	0.8		Y
11/3/2008	Imiquimod	Derma	actinic keratosis	1.2		Y
12/29/2008	Acitretin	Derma	Psoriasis			Y
1/12/2009	Tioconazole	Gynaec	vaginal yeast infections	0.8		Y
3/16/2009	Hydralazine Hydrochloride USP	Cardiovascular	High blood pressure (hypertension)		Y	
4/29/2009	Indomethacin Sodium	Anti-Inflammatory	Pain Reliever			Y
6/15/2009	Felbamate	Cardiovascular	Anticonvulsant - Epilepsy	0.8		Y
6/24/2009	Succinylcholine Chloride	CNS	Anaesthesia	0.1		Y
7/8/2009	Oseltamivir Phosphate	Anti-Viral	Influenza A,B	1.1		Y
7/13/2009	Sevelamer Carbonate	Nephrology	Kidney Dialysis	0.0		Y
7/28/2009	Artemether	Parasitology	Malaria	0.4	Y	
9/9/2009	Carisoprodol USP	CNS	Blocks pain sensations between the nerves and the brain.	3.5	Y	
12/16/2009	Colesevelam Hydrochloride	Cardiovascular	Dyslipidemia	0.7		Y
2/22/2010	Lumefantrine	Antiretroviral	Malaria in HIV infected		Y	
4/13/2010	Labetalol Hydrochloride	Cardiovascular	High blood pressure (hypertension)	3.5		Y
6/8/2010	Ibuprofen Sodium Dihydrate	Anti-Inflammatory	Pain Reliever	6.9		
8/5/2010	Artesunate	Parasitology	Malaria		Y	
9/14/2010	Ketoprofen USP	Anti-Inflammatory	Rheumatoid arthritis & osteoarthritis	3.5		Y
10/15/2010	Acyclovir Sodium	Anti-Viral	Herpes		Y	
6/3/2011	Zidovudine	Antiretroviral	HIV/AIDS	12.0	Y	
4/11/2012	Pitavastatin Calcium	Cardiovascular	Cholesterol	3.5		Y
5/21/2012	Praziquantel	Anti-Worm	Schistosoma worms		Y	
5/24/2012	Tenofovir Disoproxil Fumarate	Systemic Anti-Infectives	Chronic Hepatitis B	12.0	Y	
9/27/2012	Levetiracetam USP	CNS	Seizures (epilepsy)	7.0	Y	
11/26/2012	Milnacipran Hydrochloride	CNS	Depression & other psychiatric disorders.			
12/26/2012	Dextromethorphan Hydrobromide Monohydrate, USP	Respiratory	Cough Suppressant			
9/20/2013	Etomidate	CNS	Anaesthesia	1.2		Y
11/20/2013	Pantoprazole Sodium, USP	Gastro-Intestinal	Stomach & Esophagus problems	12.0	Y	
2/19/2014	Celecoxib USP	Anti-Inflammatory	Pain Reliever	7.0		Y
6/26/2014	Loratadine USP	Respiratory	Hay fever & allergies	7.0		Y
8/13/2014	Albendazole	Anti-Parasitic	Tapeworm infections	3.5	Y	
3/27/2015	Aprepitant	Oncology	Chemotherapy	7.0		Y
3/27/2015	Dextromethorphan Polistirex	Respiratory	Cough Suppressant			
5/11/2015	Rifaximin	Gastro-Intestinal	relieve the symptoms of irritable bowel syndrome		Y	
6/29/2015	Mesna	Oncology	Chemotherapy		Y	Y
10/12/2015	Mefenamic Acid USP	Anti-Inflammatory	Pain reliever	0.8	Y	
10/5/2015	Midazolam	CNS	benzodiazepine CNS depressant	1.2		Y
10/21/2015	Colchicine	Anti-Inflammatory	prevent or treat gout attacks (flares)	0.9		Y
1/4/2016	Mirabegron	Urine related	treat overactive bladder		Y	
4/5/2016	Dabigatran Etxilate Mesylate	Blood related	used to treat and prevent blood clots. Treatment Of Deep Venous Thrombosis And Pulmonary Embolism.			
4/5/2016	Lurasidone Hydrochloride	CNS	Psychotic Disorders	3.3		Y
6/23/2017	Ursodeoxycholic Acid (Ursodiol)	Hepatology	Cholestatic liver diseases.	0.8		Y
3/30/2017	Posaconazole Form-1	Anti-fungal		1.4	Y	
7/29/2017	Zileuton USP	Respiratory	Asthma	0.2	Y	Y
9/28/2017	Ethacrynic Acid USP	Cardiovascular	Edema	0.2		Y
11/10/2017	Flucytosine USP	Anti-Fungal	Fungal infections caused by Candida or Cryptococcus.	0.2		Y
12/14/2017	Efinaconazole	Anti-Fungal	Toenail Onychomycosis	1.1		
1/2/2018	Clomipramine Hcl USP	CNS	Anti-depressant - OCD	0.7		Y
11/1/2018	Chlorthalidone USP	Cardiovascular	High blood pressure (hypertension)	0.5		Y
7/31/2018	Mycophenolate Mofetil USP	Antineoplast+Immunomodul	immunosuppressants	0.7	Y	
10/27/2018	Bumetanide USP	Cardiovascular	Edema	0.3		
12/29/2018	Colestipol Hydrochloride USP	Cardiovascular	Cholesterol	0.1		Y
2/20/2019	Chlorpromazine Hydrochloride USP	CNS	Psychotic Disorders	0.5		
3/29/2019	Patiromer Sorbitex Calcium	Blood related	hyperkalemia	0.4		Y
3/29/2019	Flecainide Acetate USP	Cardiovascular	Tachycardias	0.1		Y
3/31/2019	Disulfiram	CNS	Chronic alcoholism	0.0	Y	
10/3/2019	Sapropterin Dihydrochloride	Blood related	Phenylketonuria	1.4		
12/30/2019	Sugammadex Sodium	CNS	Reversal of neuromuscular blockade	3.0		
2/14/2020	Edaravone	CNS	amyotrophic lateral sclerosis	1.0		Y
2/14/2020	Obeticholic Acid	Hepatology	Liver disease	4.2		Y

Source: US FDA, Company data, Macquarie Research, October 2020

## Deep dive into Solara's leading molecules

**The key APIs manufactured by Solara are Ibuprofen (25-30% contribution to Solara's sales), Praziquantel (9-11% contribution to sales), Gabapentin (8-10% contribution to sales), S-Ibuprofen, Sevelamer, Venlafaxine, Oseltamivir and Lanthanum Carbonate.**

**We estimate global demand for Ibuprofen to continue to grow at 3-4% YoY over the foreseeable future and expect pricing to largely sustain at current levels till early CY22, which is when the BASF plant becomes fully operational.**

Solara has a dominant presence in a large number of high-volume APIs, with a large proportion (65-70%) of these indicated as the first line of treatment. The key APIs manufactured by Solara are Ibuprofen (25-30% contribution to Solara's sales), Praziquantel (9-11% contribution to sales), Gabapentin (8-10% contribution to sales), S-Ibuprofen, Sevelamer, Venlafaxine, Oseltamivir and Lanthanum Carbonate. Our analysis of Sequent Scientific's annual reports before the formation of Solara reveal that Praziquantel, Oseltamivir, Succinyl chloride, Hydralazine and Citicoline are the key APIs from Sequent's stable. We believe there is scope for Solara to gain further market share in Ibuprofen given recent capacity addition in Vizag and also niche molecules like Praziquantel and Sevelamer. Our detailed analysis of Solara's leading molecules analysis reveals that Solara enjoys a solid edge in most of them:

### 1. Ibuprofen (25-30% of Solara's sales) – The legacy edge

Ibuprofen is used for pain relief and fever. It relieves pain and inflammation in conditions like headache, muscle pain, dental pain or joint pain. Ibuprofen is a non-steroidal anti-inflammatory drug (NSAID). It works by blocking the release of certain chemical messengers that cause fever, pain and inflammation (redness and swelling). Currently, Solara is the third largest manufacturer of Ibuprofen globally, with a 20% share in regulated markets. The company has ~30 years of manufacturing experience of Ibuprofen APIs. Ibuprofen has different grades and Solara is also a leading player in Ibuprofen derivatives, a market which is growing faster than the Ibuprofen market across regulated markets. These derivatives have higher margins as compared to Ibuprofen APIs. We note that Solara's Ibuprofen facility in Puducherry is one of the largest Ibuprofen facilities in the world. Post recent expansion of its Ibuprofen manufacturing capacity by 75% with Vizag Phase 1, Solara has the second largest Ibuprofen API manufacturing capacity globally.

#### Assessing Ibuprofen's global demand-supply dynamics

The global supply for the Ibuprofen molecule is ~35,000 MT, while we estimate global demand to be ~40,000MT. The global Ibuprofen API market is fairly consolidated with six suppliers representing more than 90% of the total global capacity. We estimate the global market size of Ibuprofen API at Rs40bn and Ibuprofen formulations at Rs108bn. The global Ibuprofen market has witnessed a 5-year CAGR of 3-4%. There are 48 players whose Ibuprofen DMF is listed with US FDA out of which only 16 are currently active. Since the past 2-2.5 years, there has been shortage in the supply of Ibuprofen API in the market due to the shutdown of BASF's plant in Texas in Jun-18 due to some technical problems (supplies one-sixth of Ibuprofen API globally) and also Chinese plants due to environmental issues. This resulted in an increase in the prices of the API from US\$11/kg to a peak US\$20/kg (currently at US\$17/kg) in export markets and Rs785/kg to Rs1,050/kg in domestic markets. Since then, over the past two years, from being the secondary source earlier, Solara has become the primary source for some of its clients. However, we note that Solara has refrained from being opportunistic and taking aggressive price hikes and has been supplying Ibuprofen API to its long-term customers at a much lower rate of US\$12-14/kg. We estimate global demand for Ibuprofen will continue to grow at 3-4% YoY over the foreseeable future and expect pricing to largely sustain at current levels till early CY22, which is when the BASF plant becomes fully operational.

**Fig 21 Key global Ibuprofen suppliers**

Company	Status	Capacity (TPA)	Capex plans
IOL Chemicals	Active	12,000	Plans to incur capex of Rs1.5-2bn annually post FY21
Solara Active Pharma	Active	8,400	Recently incurred capex in Vizag to increase capacity from 4,800TPA to 8,400TPA
Standing Xinhua Pharma	Active	5,000	NA
BASF	Active	5,000	Euro 200mn capex (announced in 2018) to be operational from 2021
Hubei Biocause Pharma	Active	4,800	NA
SI Group	Active	NA	\$30mn (announced in 2018) to expand capacity by 35% to be commercialized in 2020

Source: Company data, Macquarie Research, October 2020

*As per IOL, the company is witnessing increased demand for Ibuprofen API and is confident of selling ~11,500 MT in FY21 at an average realisation of US\$18/kg. We highlight this suggests an expectation of ~50% YoY jump in IOL's Ibuprofen API sales in FY21, a reflection of strong volume and pricing trends in the molecule.*

### Comparing Solara with IOL Chemicals – the global leader in Ibuprofen API

IOL Chemicals is the global leader in Ibuprofen API with an installed capacity of ~12,000TPA and ~25% global market share. IOL sold ~9,600 MT of Ibuprofen at an average realisation of US\$15/kg in FY20. With Rs10bn sales as of FY20, Ibuprofen is IOL's largest product, constituting ~55% of its total sales. IOL recently started commercial supplies of Ibuprofen API to the US. Other key APIs manufactured by IOL include Metformin Hydrochloride, Clopidoreal Bisulphate, Fenofibrate, Lamotrigine and Pantoprazole. Its manufacturing facility is fully backward integrated with in-house manufacturing of key raw materials like Iso Butyl Benzene, Acetyl Chloride and Mono Chloride Acid. Isobutyl Benzene and Acetyl Chloride constitute 45-50% of raw material costs of manufacturing Ibuprofen. Vinati Organics is the largest domestic manufacturer of Isobutyl Benzene with a 70% market share, while IOL has 30% share. We note that Vinati has guided for 25% YoY topline growth in Isobutyl Benzene in FY21, a reflection of strong near-term demand. IOL has plans to incur capex of Rs1.5-2bn per year starting FY21. As per IOL, the company is witnessing increased demand for Ibuprofen API and is confident of selling ~11,500 MT in FY21 at an average realisation of US\$18/kg. We highlight this suggests an expectation of ~50% YoY jump in IOL's Ibuprofen API sales in FY21, a reflection of strong volume and pricing trends in the molecule.

### Solara's long-term Ibuprofen contracts post Vizag expansion lend earnings visibility

Prior to commissioning of the Vizag facility (As of FY20 end), Solara had Ibuprofen API capacity of 4,800TPA. With Vizag Phase 1 getting validated in 1QFY21, Solara's Ibuprofen capacity has now expanded to 8,400TPA. Solara has a very firm customer interest and contracts for the incremental volumes of Ibuprofen it will be making at Vizag Phase 1. Solara is guiding for this facility to run at full capacity in the next 12-15 months when all regulatory audits and customer audits are completed. Presently, supplies from Vizag to ROW markets have just commenced. Despite global Ibuprofen API prices almost doubling in the last 2.5 years from US\$18/kg, we note that Solara has been more rationale in taking price hikes considering its focus on long-term relationships with clients. Solara's Ibuprofen sales are largely based (to the extent of 80-90%) on long-term contracts with big customers, unlike some of its competitors like IOL Chemicals. Management remains very confident about its position in the global Ibuprofen API market and expects to continue to grow its Ibuprofen sales profitably.

### Solara is confident on its Ibuprofen volumes and pricing despite anticipated competition

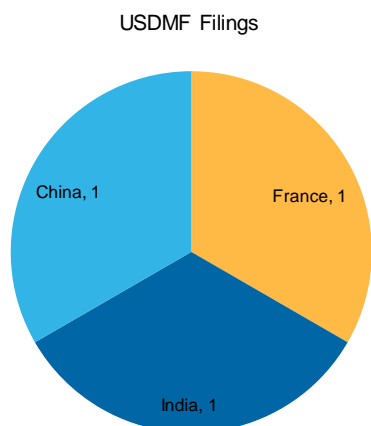
We note there is a risk of Ibuprofen prices falling after 1-1.5 years due to the ongoing capacity additions by key players like BASF and SI group. Both BASF and SI group are estimated to increase their Ibuprofen API capacity to 10,000 MT each. However, we note that global demand for Ibuprofen continues to inch up with an ageing population and a growing middle class. Also, post the re-entry after resolution of technical issues, BASF's cost structure is likely to be elevated. Hence, we do not expect Ibuprofen API prices to again revert to earlier levels of US\$11/kg. Despite BASF increasing capacities for Ibuprofen Active, having supplying Ibuprofen for more than three decades, Solara is confident about both its pricing and volumes from Ibuprofen Active for the company, largely because Solara is already charging its customers at much lower than the spot rates. Based on our calculations, at an average price of US\$14/kg, the incremental Ibuprofen capacity at Vizag at 90% utilisation can contribute an additional US\$45m (~28% of FY20 sales) to Solara's annual sales over the next 12-18 months.

## 2. Praziquantel (9-11% of Solara's sales)

*Praziquantel is a high-volume API with growing annual demand of ~1,500TPA.*

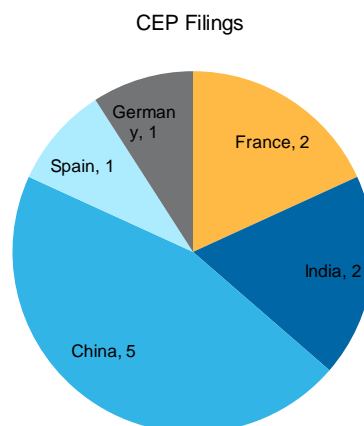
Praziquantel is a prescription drug used as an anti-worm medication. It prevents newly hatched insect larvae (worms) from growing or multiplying in human body. Specifically, it is used for schistosomiasis, clonorchiasis, opisthorchiasis, tapeworm infections, cysticercosis, hydatid disease, and other fluke infections. It is taken orally. Praziquantel was approved for medical use in the United States in 1982. It is on the World Health Organization's List of Essential Medicines. Praziquantel is a high-volume API with growing demand of ~1,500TPA. We note that Solara has a dedicated block for Praziquantel and this molecule offers strong growth potential. It is Solara's second largest molecule and contributes an estimated 9-11% to overall sales. Key Praziquantel API suppliers from India are Solara and Cipla. Other global suppliers include Merck (Germany); PCAS and Minakem (France); Hisun, Nanjing Pharmaceutical Factory, Jiangsu Chengxin Pharma, Shanghai Desano Chemical Pharma and Shanghai Jiayi Pharma (all from China) and Quimica Sintetica from Spain.

Fig 22 Praziquantel US DMF Filings



Source: US FDA, Macquarie Research, October 2020

Fig 23 Praziquantel CEP Filings



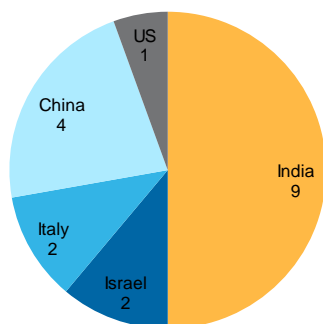
Source: EDQM, Macquarie Research, October 2020

**We estimate the global Gabapentin API demand to be more than 12,000TPA.**

### 3. Gabapentin (8-10% of Solara’s sales)

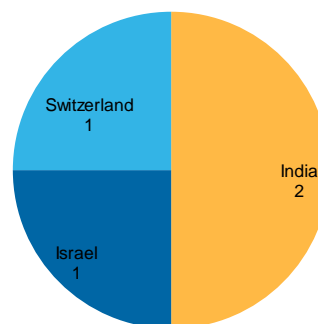
Gabapentin is an anticonvulsant medication used to treat partial seizures, neuropathic pain, hot flashes, and restless legs syndrome. It is recommended as one of several first-line medications for the treatment of neuropathic pain caused by diabetic neuropathy, postherpetic neuralgia, and central neuropathic pain. Gabapentin was first approved for use in CY93. It has been available as a generic medication in the US since CY04. In CY16, it was the 11<sup>th</sup> most prescribed medication in the US, with more than 44m prescriptions. We estimate global Gabapentin API demand to be more than 12,000TPA. India imported 730MT of Gabapentin from China in CY19. Considering that Indian companies have huge capacities to the tune of 1,500MT of Gabapentin, there has been a rising chorus in favour of import substitution for Gabapentin API in India. Divi’s is the largest global supplier of Gabapentin API with ~50% market share, followed by Hikal. We note that incremental shift of Gabapentin API procurement from local players can be an opportunity for Divi’s, Hikal and Solara.

Fig 24 Gabapentin API suppliers (US DMF)



Source: Company data, Macquarie Research, October 2020

Fig 25 Gabapentin API suppliers (Japanese DMF)



Source: Company data, Macquarie Research, October 2020

Gabapentin is Hikal’s largest product, with annual sales of ~Rs2.2bn and contributes ~40% of its pharma business revenue and ~15% of total company revenues. Hikal has Gabapentin capacity of 2,000TPA and is currently selling Gabapentin API at US\$40/kg. Hikal expects its Gabapentin API sales to grow at a stable pace. Among the Indian players, apart from Divi’s, Hikal and Solara, Aurobindo also has a significant presence in Gabapentin. Other Indian companies who have filed DMFs for Gabapentin API are Anjan Drugs, Hetero Drugs, Saraca Lab, Sun Pharma and Suven Lifesciences. Out of these, only Divi’s and Hikal supply Gabapentin to Japan, wherein they

compete with Lonza and Assia Chemicals. While Solara is not as dominant in Gabapentin as it is in Ibuprofen, we note that the global Gabapentin formulations market has reported a CAGR of 7% over the past 5 years. With the opportunity size being huge, despite lower pricing, we believe there is ample scope for Solara to expand its presence in Gabapentin.

**Mycophenolate Mofetil USP's global formulation sales are US\$150-160m.**

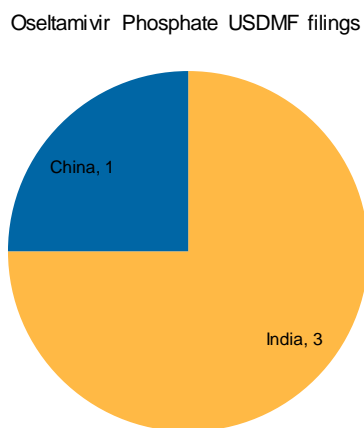
**4. Mycophenolate Mofetil USP (4-6% of Solara's sales)**

Mycophenolate Mofetil USP is an immunosuppressant medication used to prevent rejection following organ transplantation and to treat Crohn's disease. Specifically it is used following kidney, heart, and liver transplantation. It can be given orally or by injection into a vein. We estimate Mycophenolate Mofetil USP's global formulation sales are US\$150-160m. India suppliers include Biocon, Solara, Concord Biotech, Emcure Pharma, Apotex, RPG Life Sciences. Other Suppliers include Hisun, Livzon New North River Pharma, Shandong New Time Pharma, Wuxi Fortune Pharma – China; Chunghwa Chemical Synthesis & Biotech, Formosa Labs – Taiwan; Ckd Bio Corp – Korea; Excella GmbH – Germany; Lek Pharma – Slovenia; Teva Pharma – Israel; Teva Czech Industries – Czech Republic.

**5. Oseltamivir (4-6% of Solara's sales)**

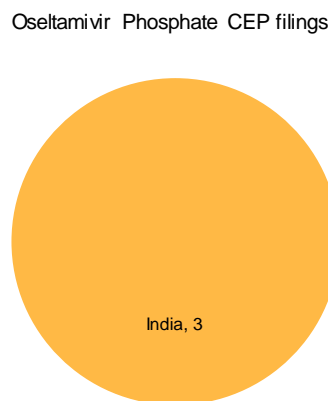
Oseltamivir Phosphate, sold under the brand name Tamiflu, is an antiviral medication used to treat and prevent influenza A and influenza B (flu). Its global sales in CY18 were US\$1.1bn, growing in low single digits. Growing incidences of influenza and increasing awareness about the prevention are major drivers of Oseltamivir's market growth over the past few years. The Oseltamivir market is growing faster in Asia and Africa, compared to US and Europe. As per WHO, 3-5m influenza cases occur globally across the world, out of which 250-500K result in deaths. Key Indian API suppliers of Oseltamivir are Solara, Macleods, Hetero and MSN Pharma. Sinopep Allison is a supplier in China. Solara has tie-ups with various formulation players for Oseltamivir.

**Fig 26 Oseltamivir Phosphate USDMF filings**



Source: Company data, Macquarie Research, October 2020

**Fig 27 Oseltamivir Phosphate CEP filings**



Source: Company data, Macquarie Research, October 2020

**6. Sevelamer (4-6% of Solara's sales)**

Sevelamer is used to control high blood levels of phosphorus in people with chronic kidney disease who are on dialysis. Sevelamer is in a class of medications called phosphate binders. Solara is one of the first API companies to develop Sevelamer and is a supplier to Indian formulation companies like Dr. Reddy's and Cipla. The Sevelamer API is based on polymer chemistry and hence is difficult to manufacture. Sevelamer has been a steady contributor for Solara.

**One-quality policy across all six facilities**

Apart from Vizag, Solara has five other manufacturing facilities. The Puducherry, Cuddalore and Ambarnath facilities were erstwhile Strides' facilities, while Mangaluru and Mysuru were part of Sequent Scientific. Vizag is Solara's greenfield facility. With the five existing facilities, excluding Vizag, Solara has a capacity of over 2,000KL. All the plants, except Ambarnath and Vizag are operating at optimal capacity utilisation of 80-90%. We note that there is scope for Solara to undertake brownfield expansion at all of its sites, particularly Mysuru and Vizag. Solara has a one

quality policy across its facilities for all markets. All the facilities follow a universal framework on systems, quality and compliance.

- ⇒ **Puducherry:** The Puducherry facility is primarily used for the manufacturing of Ibuprofen API and is one of the largest Ibuprofen API manufacturing facilities in the world. In addition, it is also being used for pilot CRAMS operations. The facility was last inspected by US FDA in Feb-20.
- ⇒ **Cuddalore:** This is a multi-purpose API manufacturing facility. This facility has been classified as OAI after receiving 6 observations post US FDA's inspection in Mar-20.
- ⇒ **Mangaluru:** In this facility, Solara manufactures niche APIs as well as high-volume APIs and intermediates. In April 2013, API Drug manufacturing facility at Mangalore received an USFDA approval. It is the largest production facility for Anthelmintic APIs with key products like Praziquantel and Albendazol being manufactured at this facility.
- ⇒ **Ambarnath:** This is a multi-purpose facility with lines to manufacture complex APIs and advanced intermediates. The Ambarnath facility was acquired by Solara from Strides in FY19 for a consideration of Rs1.3bn (out of which Rs750m was paid in FY19 and the balance in FY20). Revenues from the Ambarnath facility (earlier called Strides Chemical) commenced in 1QFY20. Solara had been working towards lowering under-recoveries in its Ambarnath facility, with higher capacity utilisation. Solara expects its Ambarnath facility to operate at optimal utilisation by FY21 end (at 40% utilisation in FY20). All other facilities, except Vizag, are operating at optimal utilisation. Till revenues from Vizag commence, we believe Ambarnath will an important growth driver for Solara.
- ⇒ **Mysuru:** Solara's intermediates manufacturing facility is in Mysuru. Solara has been working on manufacturing certain key intermediates at its Mysuru facility.

**Progress of backward integration at Mysuru facility is a key monitorable.**

**Fig 28 Solara's manufacturing facilities**



#### Pondicherry Facility

- The buildings for the manufacturing of Intermediates and isolation of final drug substance are separate.
- Packing sections are controlled and meets ISO Class - 8 requirements.
- Reactors are in the range of 1200 L to 12,500 L of size with MOC of SS, MSGL, GL
- Highly flexible pilot plant with a broad range of equipment



#### Multipurpose Cuddalore Facility

- FDA inspected cGMP multi purpose API and intermediate facility.
- Broad range of reactor sizes with flexible containment and LEV facilities. The facility has reactors varying in size from 250 L to 12500 L
- Different material of construction SS, GL, SS-GL, MS-GL, Hastelloy
- Temperature ranges from -90°C to +200°C
- Segregated hydrogenation facility with multiple gas scrubbing systems

Source: Company data, October 2020

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Fig 29 Solara’s manufacturing facilities



**Multipurpose Mangalore Facility**

- Multi purpose cGMP API and intermediate facility inspected by DCD, USFDA, WHO, EDQM, MFDS, TGA, AEMPS, ISO-14001
- 6 Full fledged cleanrooms meeting ISO class-8 slandered can hand six products simultaneously
- Broad range of stainless steel and Mild steel glass lined reactors of size from 250 L to 6300L
- Self contained “Pilot facility” having SS, GL and all glass reactors of size 20 Lit to 250Lt
- Pressure reaction facility, Operating temperature ranges from -20°C to +130°C



**Multipurpose Ambernath Facility**

- FDA inspected cGMP multi purpose API and intermediate facility
- The facility has reactors varying in size from 250 L to 8000 L
- Different material of construction SS, GL, SS-GL, MS-GL
- Temperature ranges from -20°C to +130°C
- Segregated hydrogenation facility with multiple gas scrubbing systems

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Source: Company data, October 2020, October 2020

Fig 30 Solara’s R&D centres in Chennai and Bengaluru

**In House R&D Brings Significant Speed And Capabilities To Enable Continuous Launch Of New Products**



Two India based R&D Centre for best in class product development



Our R&D Centre in Chennai

- ✓ **Technical Expertise**  
Strong technical leadership to develop high-quality pharma products that create strategic value for our partners and customers
- ✓ **Product Selection**  
Focus on differentiated products characterized by complex formulations across diverse therapeutic categories
- ✓ **Development**  
R&D capability to develop over an entire cycle with new and better technologies at competitive cost
- ✓ **Regulatory Filings**  
Strong IP assessment capabilities and strong global regulatory expertise



Our R&D Centre in Bangalore

Source: Company data, October 2020

Fig 31 Key details about Solara’s six manufacturing facilities

Origin	Location	Function	Reactor capacity	Approvals	US FDA compliance status
Sequent	Manguluru	Niche as well as high-volume APIs	250L to 6300L	US FDA, TGA, WHO	Clear
Strides	Puducherry	One of the largest Ibuprofen API manufacturing facility in the world.	1200L to 12,500L	US FDA, PMDA, EU, WHO	Clear
Strides	Cuddalore	Multi-purpose API facility	250L to 12500L	US FDA, PMDA, EU, WHO	OAI
Strides Greenfield	Ambernath Vizag	Multi-purpose API facility Multi-purpose API facility	250L to 8000L	US FDA, EU Validations complete	Clear Clear
Sequent	Mysuru	Intermediates		NA	NA

Source: Company data, Macquarie Research, October 2020



Fig 32 Regulatory compliance status of Solara's facilities

Regulator	Country	Latest Inspections at			
		Puducherry	Cuddalore	Mangaluru	Ambernath
FDA	US	Feb-20	Mar-20	Feb-20	Jan-19
EDQM	Europe	Nov-14	Jan-17	Sep-17	Oct-17
WHO	Geneva	-	Oct-16	Feb-18	-
CDSCO	India	Jun-19	Nov-19	Jan-19	Feb-20
TGA	Australia	-	May-98	Feb-13	-
MHRA	UK	Jan-17	Jan-17	-	-
PMDA	Japan	Nov-07	Mar-17	Jul-19	-
Govt of Upper Bavaria	Germany	Apr-19	-	-	-
MFDS	South Korea	Feb-17	Nov-12	Jul-18	-
COFEPRIS	Mexico	Sep-15	Sep-15	-	-
JAZMP	Slovenia	Feb-15	-	-	-
Danish Medicines Agency	Denmark	Oct-08	Oct-08	-	-
AEMPS	Spain	-	-	Sep-17	-
HPRA	Ireland	Nov-14	Nov-14	-	-

Source: Company data, Macquarie Research, October 2020

**Cuddalore OAI is a blemish on Solara's strong compliance track record.**

### Cuddalore OAI is a blemish on Solara's strong compliance track record

Post inspection in March 2020, the US FDA issued a Form 483 with 6 observations to Solara's Cuddalore facility. In Jun-20, US FDA classified the inspection as OAI. The Cuddalore facility was established in 1991 by erstwhile Shasun Pharma and became part of Strides Pharma pursuant to the merger of Strides with Shasun in November 2015. In April 2018, the API business of Strides was demerged from the parent company and integrated into Solara. The facility has a total area of ~72,800 sq. metres with constructed area of ~40,000 sq. metres which includes five production blocks and 12 packing sections catering multi product manufacturing with 750+ employees at the site. We estimate Cuddalore is Solara's third most important facility contributing 20-25% to existing sales and there were very few major new launches planned from this facility. For these, Solara is in the process of implementing the mirroring strategy, which is expected to be completed in the next 3-6 months. As per management, the observations do not have any impact on existing API sales. Prior to the US FDA inspection in Mar-20, this facility had successfully completed 8 US FDA inspections, out of which two were zero 483s.

**We estimate Cuddalore is Solara's third most important facility contributing 20-25% to existing sales. There were very few major new launches planned from this facility.**

Our analysis of Cuddalore's Form 483 for Cuddalore suggests that most of the key observations pertain to the Ranitidine NDMA impurity issue (refer our reports [Ranitidine – the devil is in the details](#) and [US FDA recalls Ranitidine on impurity risk](#)). Ranitidine used to contribute 7% to Solara's annual sales and post the NDMA impurity issue, Solara took the entire provision for Ranitidine in 4QFY20 itself. We highlight that Solara has already stopped supplies of Ranitidine and we are not forecasting any sales from Ranitidine in our estimates. The erstwhile Ranitidine capacity at Cuddalore is being used to meet additional demand for existing products, new APIs which can be manufactured in that facility and the CRAMS business. None of the US FDA observations were pertaining to the quality systems or compliance systems. They were largely pertaining to specific protocols regarding testing communication. We note that remediation of the facility has already been completed and Solara has submitted all responses to US FDA.

Fig 33 Cuddalore Form 483 observations

No.	Observation
1	Investigations are inadequate in that they do not evaluate all potential root causes
2	The firm's cleaning validation program for API is inadequate
3	Laboratory records do not include complete records of the periodic calibration of laboratory instruments. Specifically, the QC laboratory failed to qualify/calibrate the laboratory analytical instruments to ensure that they are sustainable for intended use
4	Testing and release of drug products for distribution do not include appropriate laboratory determination of satisfactory conformance to the final specification prior to release
5	The firm failed to properly validate the analytical procedure for the determination of method suitability
6	Quality Unit lacks oversight

Source: US FDA, Macquarie Research, October 2020

**Fig 34 Key existing products from the Cuddalore facility**

Product	Therapy
Aprepitant	Antiemetic
Bumetanide (Inj)	Loop Diuretic
Celecoxib	Anti-inflammatory
Colesevelam hydrochloride	Antihyperlipidemic
Colestipol hydrochloride	To treat primary hypercholesterolemia
Cycloserine	Antitubercular
Dabigatran etexilate mesylate	Anticoagulant
Dextromethorphan polistirex	Antitussive
Methohexital	Anaesthetic
Mirabegron	OAB Treatment
Nizatidine	Antiulcerative
Olanzapine	Antipsychotic
Pitavastatin calcium	Antihyperlipoproteinemic
Ranitidine hydrochloride	Antiulcer
Sevelamer carbonate	Hypophosphatemic agent
Sevelamer hydrochloride	Hypophosphatemic agent

Source: Pharmacompass, Company data, Macquarie Research, October 2020

**Under Mr. Sesha, the focus is on customer centricity, new products and new markets, continuous improvement and engaged employees.**

### Seamless transition in senior leadership positions augurs well

The current MD & CEO of Solara, Mr. Bharath Sesha, joined the company in Dec-19. We note that there was more than an 8 month transition period between him and the earlier MD & CEO, Mr. Jitesh Devendra (who resigned in Aug-20). Under Mr. Sesha, the focus is on customer centricity, new products and new markets, continuous improvement and engaged employees. Similar to the seamless MD & CEO transition, Solara has already announced the appointment of CFO designate, Mr. Subhash Anand, to replace the current CFO, Mr. Hariharan Subramaniam, post his retirement in Mar-21. In his previous role, Mr. Anand was the President & CFO of PI industries.

**Fig 35 Senior Management team**

Name of member	Designation	Description
Bharath.R.Sesha	Managing Director & Chief Executive Officer	He has over two decades of experience across diverse industries. He has held CXO level positions in companies like DSM Sinochem Pharma and Royal DSM NV. Bharath is an Engineering graduate with a management degree from the Institute for Technology and Management, Chennai. He also has a master's degree in International Management from Thunderbird School of Global Management, United States.
Hariharan Subramaniam	Executive Director	Mr. S. Hariharan is a Cost Accountant with experience of more than 30 years in field of Corporate Finance, Accounts and Strategic planning. He played a vital role in the merger process of Shasun Pharma with Strides Shasun Ltd.
Subhash Anand	Chief Financial Officer	He is a qualified AICWA & CMA from the Institute of Management Accountants (USA). He has worked with Whirlpool, Sterilite, Hindustan Copper and Calcom in senior finance roles. His last position was as President & CFO of PI Industries
Sreenivasa Reddy B	Chief Operating Officer	Mr. Sreeni did his Master of Pharmacy from KMC, Manipal of Mangalore University and had over 24 years of experience. He worked with Dr. Reddys, Strides Pharmaceuticals, Murty Pharma Inc, Medreich and Shasun Pharma at various disciplines before Shasun Pharma Ltd merged with Strides Shasun
Venkateshan Rangachari	Chief Business Officer	He has over 29 years experience. He is a Chemical Engineer with MDP from IIM (A). He is also a IRCA certified Pharmaceutical Quality Auditor. Prior to this, he has worked with Claris Life Sciences, Aurobindo, Shasun, Sun Pharma. He is currently based at London.
Sundara Moorthy V	Chief Quality Officer	He has done his Post Graduation in Organic Chemistry. He has experience of 24 years. He has worked with Shasun Pharma Ltd, Ranbaxy Laboratories Ltd, Actavis, Neuland Laboratories Ltd, Strides Shasun Limited and followed by Solara.
Roy Joseph	Chief Human Resource Officer	Roy has over 30 years of multifaceted experience. Roy has held leadership positions in British American Tobacco, Diageo, BOC India, Mahindra & Mahindra, Jindal Steel and Power Ltd, Ashok Leyland and MRF Ltd. He has done his Master's in Business Administration from XLRI, Jamshedpur.
Swaminathan S	Senior VP R&D	He did his M.Tech from IIT Bombay, has more than 25 years of experience. Mr. Swaminathan was associated with Jubilant Life Sciences, Alembic, Dr. Reddy Laboratories, Orchid & Ranbaxy.

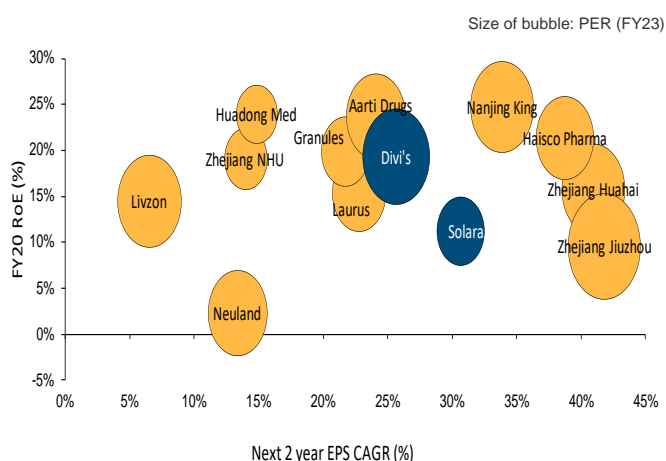
Source: Company data, Macquarie Research, October 2020

## Valuation, recommendation, risks

**We assign Solara a 13x Sep-22 EV/EBITDA multiple, which is still at a significant discount to most of its global and Indian API peers.**

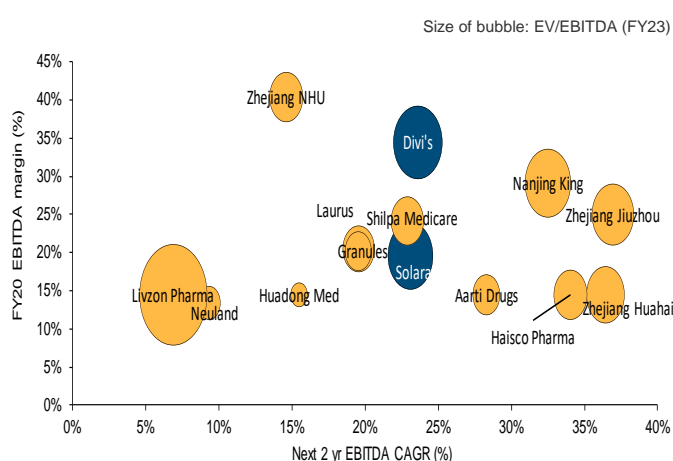
As highlighted in our sector report, our in-depth global comparison of API/CRAMS companies suggests that Indian companies like Solara fare well on cash conversion as well as efficiency metrics like fixed asset turnover. Despite scoring well on most parameters, at 8.8x FY23E EV/EBITDA, Solara is among the cheapest API stocks globally. Notwithstanding the growth tailwinds, Solara is trading at a substantial discount to Chinese competitors like Huahai, Nanjing, Zhejiang Jiuzhou and Haisco. With strong API growth visibility, increasing importance of pure-play API suppliers, rising CRAMS contribution, an improving margin profile and a strong regulatory track record, we expect the stock to re-rate even further (stock up 195% in the last one year). At our target price, the stock implies a 12.5% revenue and 16% EBITDA CAGR over FY20-30E. On our FY25 estimates (once Vizag comfortably reaches optimal utilisation), the stock is trading at just 5x EV/EBITDA. We assign Solara a 13x Sep-22 EV/EBITDA multiple, which is still at a significant discount to most of its global and Indian API peers, and incorporate risks like high client and portfolio concentration. Accordingly, we assign a target price of Rs1,680 for Solara and initiate coverage with an Outperform rating on the stock. In the bear/bull cases, we derive a value per share of Rs1,320/Rs2,064.

**Fig 36 RoE, EPS CAGR vs PER for API companies**



Source: Bloomberg, Macquarie Research, October 2020

**Fig 37 EBITDA margin, EBITDA CAGR vs EV/EBITDA for API companies**



Source: Bloomberg, Macquarie Research, October 2020

**Fig 38 Solara's target price calculation**

EV/EBITDA	1HFY23E
Annualised 1HFY23E EBITDA (Rs m)	4,621
Target Sep-23E EV/EBITDA multiple (x)	13
Target EV (Rs m)	60,067
Less: Net debt (Rs m)	-107
Target market cap (Rs m)	60,174
Number of shares (m)	36
<b>Target price (Rs)</b>	<b>1680</b>

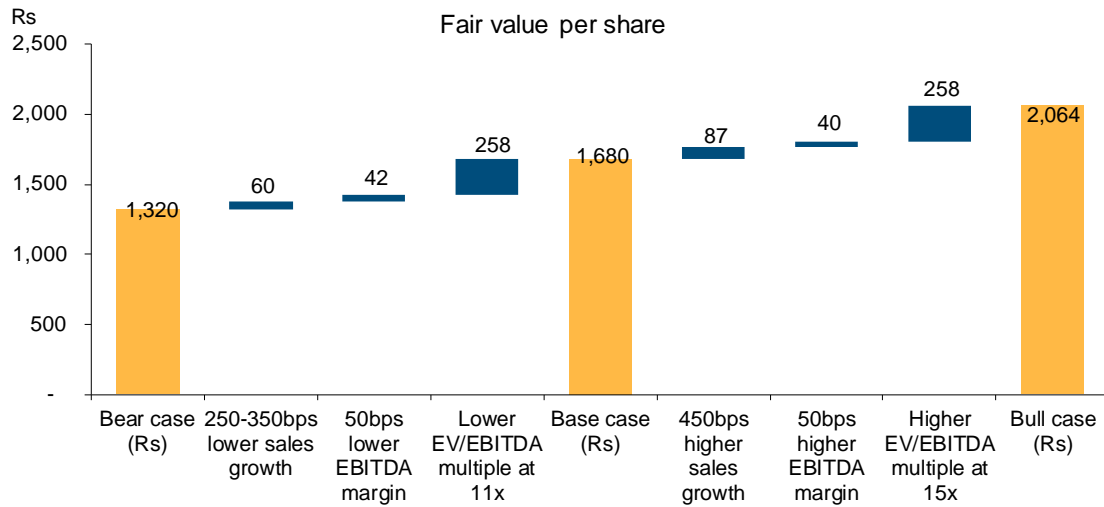
Source: Macquarie Research, October 2020

**Fig 39 In the bear/bull cases, we derive a value per share of Rs1,320/2,064 for Solara**

	Bear case		Base case		Bull case	
	FY22E	FY23E	FY22E	FY23E	FY22E	FY23E
Revenue growth (% YoY)	13.9%	14.9%	17.4%	17.4%	21.9%	21.9%
EBITDA margin (%)	21.4%	21.8%	21.9%	22.3%	22.4%	22.8%
Sep-22E target EV/EBITDA multiple (x)	11.0		13.0		15.0	
<b>Target price (Rs)</b>	<b>1,320</b>		<b>1,680</b>		<b>2,064</b>	
<b>Upside (%)</b>	<b>21%</b>		<b>54%</b>		<b>89%</b>	

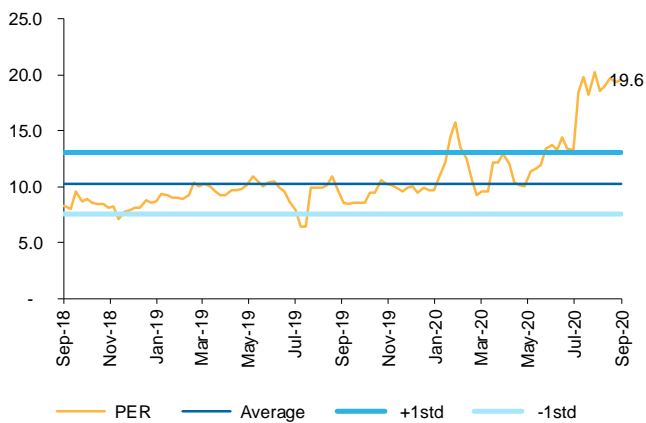
Source: Company data, Macquarie Research, October 2020

**Fig 40** In our bull case scenario, Solara’s fair value per share goes to Rs2,064 per share



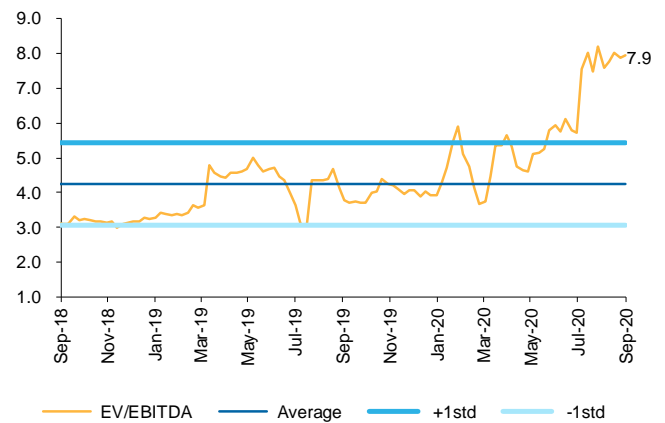
Source: Company data, Macquarie Research, October 2020

**Fig 41** Solara’s 1-year forward PER band chart



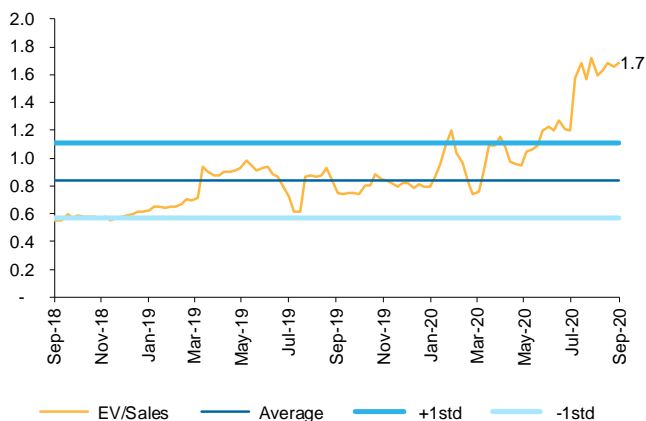
Source: Bloomberg, Macquarie Research, October 2020

**Fig 42** Solara’s 1-year forward EV/EBITDA band chart



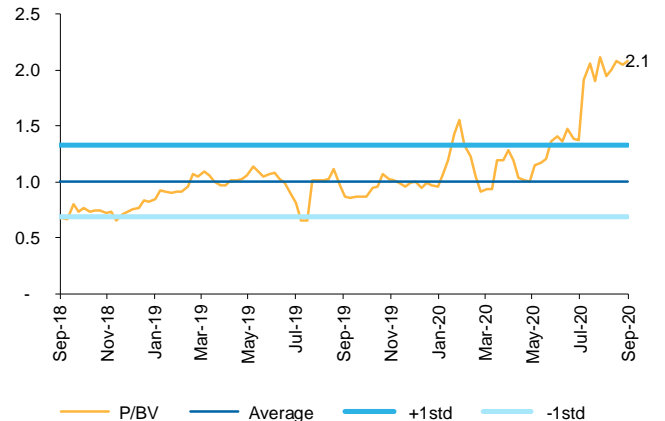
Source: Bloomberg, Macquarie Research, October 2020

**Fig 43** Solara’s 1-year forward EV/Sales band chart



Source: Bloomberg, Macquarie Research, October 2020

**Fig 44** Solara’s 1-year forward P/BV band chart



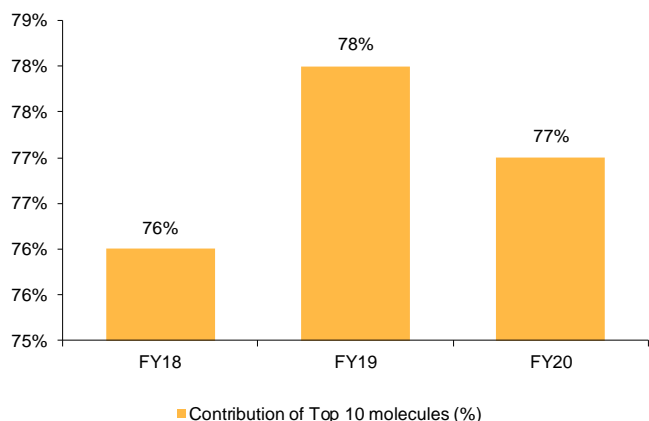
Source: Bloomberg, Macquarie Research, October 2020

**Key risks**

**Adjusted for Strides, Solara's Top 5 clients contribute less than 20% of its sales.**

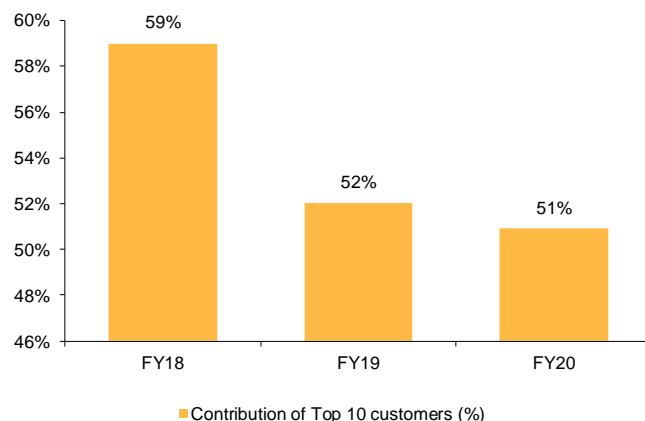
- High client and product concentration:** Solara's Top 10 molecules and Top 10 customers accounted for 77% and 51% of revenues respectively in FY20. After the Ranitidine recall in Apr-20, the top 10 molecules for the company now contribute 76% of its top line, while top 10 customers contribute 48% of its top line. Strides Pharma, a promoter group company, is the largest customer and Solara has an exclusivity agreement with Strides in US for few APIs. In FY20, Strides contributed Rs2.68bn to Solara's sales (21% of sales), lower than Rs3.04bn (23.2% of sales) in FY19. We note that Strides' strong growth outlook in US and other regulated markets augurs well for Solara. Adjusted for Strides, Solara's Top 5 clients contribute less than 20% of its sales. The other key clients include Merck, Pfizer, Reckitt Benckiser and Amneal. Solara's Top 10 products are spread out across customers and geographies. While Solara has been working on lowering the dependence on its Top 10 molecules, it is fine with the revenue contribution from the Top 10 clients and is not making any conscious efforts to diversify.

**Fig 45 Contribution of Top 10 molecules to sales**



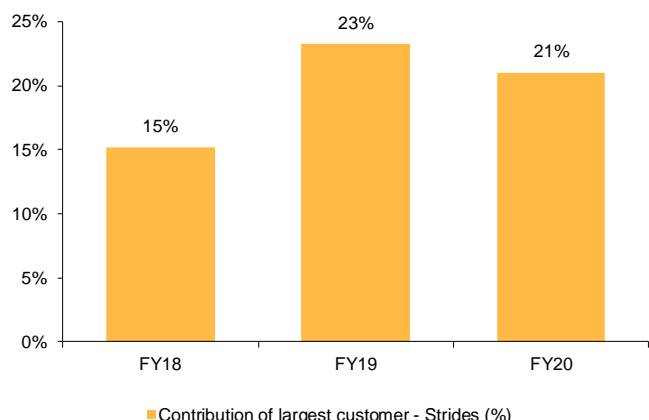
Source: Company data, Macquarie Research, October 2020

**Fig 46 Contribution of Top 10 customers to sales**



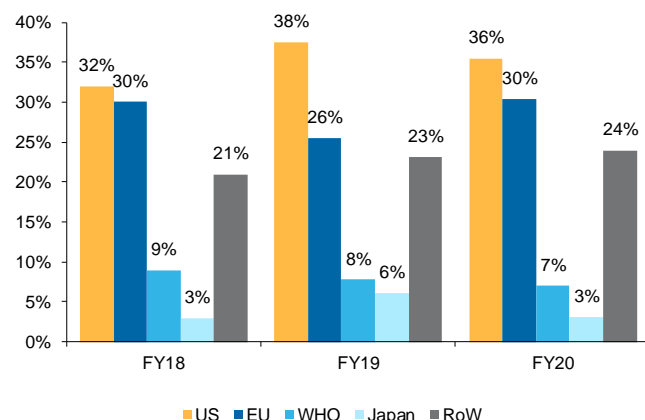
Source: Company data, Macquarie Research, October 2020

**Fig 47 Strides contributed to 21% of Solara's FY20 revenue**



Source: Company data, Macquarie Research, October 2020

**Fig 48 Geography wise revenue breakup**



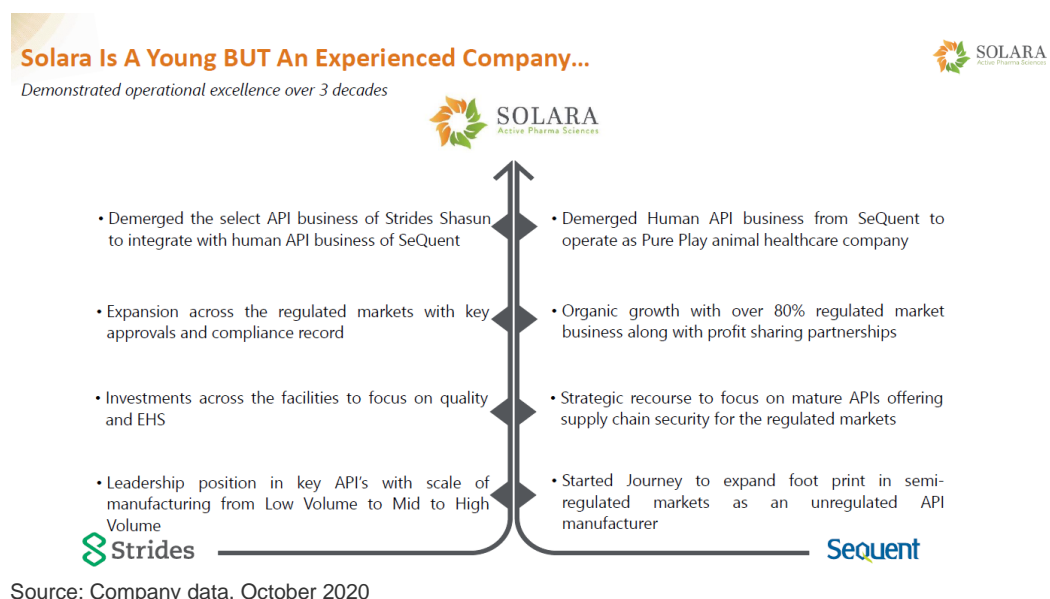
Source: Company data, Macquarie Research, October 2020

- Inter-corporate deposit was a key concern, which has been sorted out as guided earlier:** In Mar-20, Solara had extended an inter-corporate deposit of Rs500m in 4QFY20 to a group company (Tenshi Life Sciences). The group entity has repaid the amount, along with interest, as of end Jun-20. Thus, as of Jun-20, the company has no outstanding ICDs. We also note that post Mr. Arun Kumar's stake sale in Sequent, pledged shares in Solara have reduced to ~2% of promoter shareholding vs 51% as of Jun-20.

- **Goodwill worth Rs3.65bn:** Since its inception, Solara has goodwill of Rs3.65bn on its balance sheet. The merger of the human API segments of Strides and Sequent, which resulted in the formation of Solara, led to the creation of this goodwill amount (tested for impairment each year). We note that the goodwill has not yet been impaired as yet.
- **30% of total RM is sourced from China:** 35% of Solara's raw materials are imported, out of which 30% are from China and 5% are from other markets. As part of an ongoing exercise, the company has been working on looking at alternate sources from other geographies as well as backward integration initiatives. Solara has identified sources in India and Europe and qualification is underway for these alternative vendors.
- **Lower export incentives likely henceforth:** As highlighted in our recent report – [India Pharma – Exporters in a fix over MEIS](#), the Indian government has imposed a cap of Rs20m on total reward under the Merchandise Exports from India scheme (MEIS) per Importer Exporter Code (IEC) holder from 1 September 2020 to 31 December 2020. The government has cautioned that even this cap of Rs20m may be subject to further downward revision to ensure that the total claim under MEIS does not exceed the overall allocated amount of Rs50bn. Also, with effect from 1 January 2021, MEIS will be withdrawn and will be replaced by a new WTO compliant scheme called the Remission of Duties or Taxes On Export Product (RoDTEP). The exact nature and quantum of export incentives under RoDTEP is still under consideration and likely to be announced in the next few months. Assuming just Rs60m annual incentives from 1<sup>st</sup> Jan, 2021, our analysis suggests a worst case hit of 1-2% on Solara's FY22/23E EBITDA.

## Appendices

**Fig 49 Solara was formed by merging the human API segments of Strides and Sequent**



**Fig 50 Board of Directors**

Name of member	Designation	Description
Deepak Vaidya	Chairman & Non-Executive Director	Mr. Deepak Vaidya is a fellow member of the Institute of Chartered Accountants in England and Wales. He has previously worked as the Country Head of Schroder Capital Partners (Asia) Pte. Ltd. for over 12 years.
Nirmal Bhogilal	Independent Director	Mr. Nirmal Bhogilal is the Chairman of the Batliboi Group. He is a Committee Member and Past President of Indo German Chamber of Commerce. He is also a Committee Member of the Forum of Free Enterprise and a Council Member of the National Centre for the Performing Arts (NCPA).
Ramakrishnan R	Independent Director	He is a CA and also a Law Graduate from Bangalore University. He is a Management Consultant at Bangalore having an experience of 36 years. He was nominated by KSIIDC for few listed Companies and currently holds directorships in reputed companies. He is also a Managing Trustee for RRK Foundation.
Dr. Kausalya Santhanam	Independent Director	She is the Founder of SciVista IP & Communication. She has a Ph.D. in Cell Biology and Immunology from PGIMER. Her Post-Doctoral training was in Cancer Biology at Center for Cellular and Molecular Biology (CCMB). She also worked for five years in the Intellectual Property Department of CuraGen Corporation, a Biopharmaceutical company at Connecticut, USA.
Ronald Tjeerd De Vries	Independent Director	Mr. Ronald Tjeerd de Vries (Ron) is a MSc in Chemical Engineering and IMD executive Leadership Alumni. He has 25 years' experience in the MNC Corporate Sector in Pharma and Food Presently he is Owner and MD of RDV Consulting based at Auckland (NZ)
Ankur Thadani	Non-Executive Director	He is a Principal at TPG Growth. Ankur also serves on the board of CTSI, Rhea Healthcare, Fourth Partner Energy and Asiri Hospitals. He also worked India Equity Partners. Ankur received his MBA from IIFT, where he was awarded a Gold Medal for all-round achievement.
Hariharan S	Executive Director & Chief Financial Officer	Mr. S. Hariharan is a Cost Accountant with experience of more than 30 years in field of Corporate Finance, Accounts and Strategic planning. He played a vital role in the merger process of Shasun Pharma with Strides Shasun Ltd.
Bharath.R.Sesha	Managing Director & Chief Executive Officer	He has over two decades of experience across diverse industries. He has held CXO level positions in companies like DSM Sinochem Pharma and Royal DSM NV. Bharath is an Engineering graduate with a management degree from the Institute for Technology and Management, Chennai. He also has a master's degree in International Management from Thunderbird School of Global Management, United States.

Source: Company data, Macquarie Research, October 2020

**Fig 51 Solara's related-party transactions (excluding Rs500m ICD issued in Mar-20, which has since been repaid)**

Transaction (Rs mn)	Entity	Dec-17	FY18	FY19	FY20
Sale of goods	Strides Pharma Science	-	792	3,117	2,676
	Aurore Life Sciences Private	30	30	1	5
	Tenshi Kaizen Private	0	-	1	-
	Sequent Scientific	-	-	265	-
	Alivira Animal Health	392	205	102	100
Sale of services	Sterling Pharma Solutions	-	4	16	-
	Strides Pharma Science	-	6	101	100
Interest Income	Tenshi Life Sciences Private	-	-	-	9
Other operating revenue	Strides Pharma Science	-	-	22	17
Other Income	Tenshi Life Sciences Private	-	-	8	14
Sale of Asset	Strides Pharma Science	-	-	2	-
Purchase of goods	Alivira Animal Health	203	17	55	194
	Sequent Scientific	24	-	11	-
	Strides Pharma Science	-	-	6	24
	Sequent Reserch Ltd	-	-	-	-
	Aurore Life Sciences Private	2	2	33	27
Purchase of services	Sequent Research	-	57	82	58
	Sterling Pharma Solutions	-	-	9	-
	Batliboi Impex	-	-	3	9
Purchase of PPE	Tenshi Life Sciences Private	-	50	-	3
	Sovizen Life Sciences Private	-	1	-	-
	Strides Pharma Science	-	-	349	-
Purchase of Intangible asset	Sequent Scientific	-	-	2	-

Source: Company data, Macquarie Research, October 2020



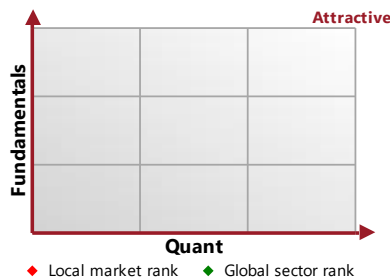
# Macquarie Quant Alpha Model Views

The quant model currently holds a neutral view on Solara Active Pharma Sciences. The strongest style exposure is Price Momentum, indicating this stock has had strong medium to long term returns which often persist into the future. The weakest style exposure is Quality, indicating this stock is likely to have a weaker and less stable underlying earnings stream.

**467/1117**

Global rank in  
Pharma, Biotech & Life Sciences

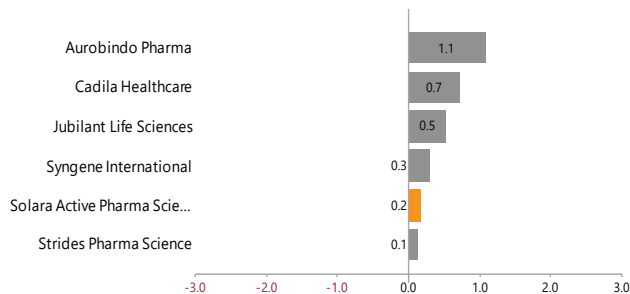
% of BUY recommendations 0% (0/0)  
 Number of Price Target downgrades 0  
 Number of Price Target upgrades 0



Displays where the company's ranked based on the fundamental consensus Price Target and Macquarie's Quantitative Alpha model.  
 Two rankings: Local market (India) and Global sector (Pharma, Biotech & Life Sciences)

## Macquarie Alpha Model ranking

A list of comparable companies and their Macquarie Alpha model score (higher is better).



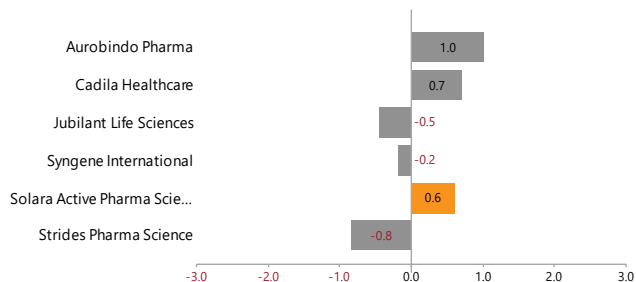
## Factors driving the Alpha Model

For the comparable firms this chart shows the key underlying styles and their contribution to the current overall Alpha score.



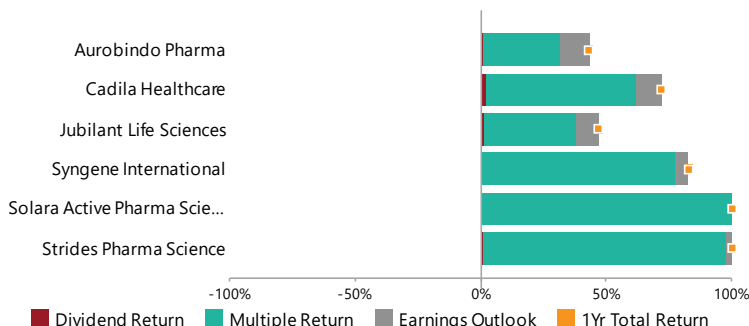
## Macquarie Earnings Sentiment Indicator

The Macquarie Sentiment Indicator is an enhanced earnings revisions signal that favours analysts who have more timely and higher conviction revisions. Current score shown below.



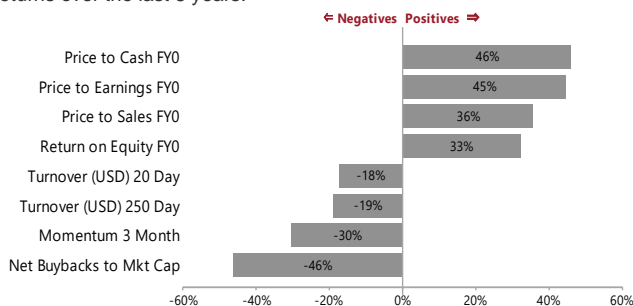
## Drivers of Stock Return

Breakdown of 1 year total return (local currency) into returns from dividends, changes in forward earnings estimates and the resulting change in earnings multiple.



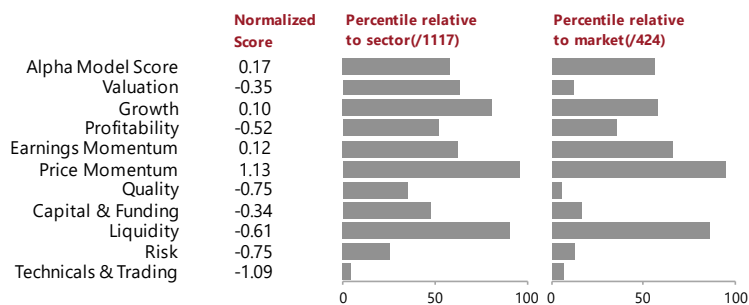
## What drove this Company in the last 5 years

Which factor score has had the greatest correlation with the company's returns over the last 5 years.



## How it looks on the Alpha model

A more granular view of the underlying style scores that drive the alpha (higher is better) and the percentile rank relative to the sector and market.



Source (all charts): FactSet, Thomson Reuters, and Macquarie Quant. For more details on the Macquarie Alpha model or for more customised analysis and screens, please contact the Macquarie Global Quantitative/Custom Products Group ([cpg@macquarie.com](mailto:cpg@macquarie.com))

## Solara Active Pharma Sciences (SOLARA IN, Outperform, Target Price: Rs1,680.00)

Quarterly Results					Profit & Loss						
		1Q/21A	2Q/21E	3Q/21E	4Q/21E		2020A	2021E	2022E	2023E	
Revenue	m	3,484	3,949	3,865	5,079	Revenue	m	13,218	16,376	19,230	22,581
Gross Profit	m	1,987	2,164	2,118	2,672	Gross Profit	m	7,229	8,942	10,557	12,487
Cost of Goods Sold	m	1,497	1,785	1,747	2,407	Cost of Goods Sold	m	5,989	7,435	8,673	10,094
EBITDA	m	838	863	845	779	EBITDA	m	2,594	3,324	4,206	5,035
Depreciation	m	262	307	285	285	Depreciation	m	942	1,138	1,349	1,500
Amortisation of Goodwill	m	0	0	0	0	Amortisation of Goodwill	m	0	0	0	0
Other Amortisation	m	0	0	0	0	Other Amortisation	m	0	0	0	0
EBIT	m	576	556	560	494	EBIT	m	1,653	2,186	2,857	3,535
Net Interest Income	m	-198	-199	-200	-199	Net Interest Income	m	-779	-796	-600	-450
Associates	m	0	0	0	0	Associates	m	0	0	0	0
Exceptionals	m	0	0	0	0	Exceptionals	m	0	0	0	0
Forex Gains / Losses	m	0	0	0	0	Forex Gains / Losses	m	0	0	0	0
Other Pre-Tax Income	m	46	52	64	127	Other Pre-Tax Income	m	275	289	303	319
Pre-Tax Profit	m	423	409	424	423	Pre-Tax Profit	m	1,149	1,680	2,560	3,404
Tax Expense	m	-1	-1	-1	-81	Tax Expense	m	-4	-84	-461	-715
Net Profit	m	423	408	423	342	Net Profit	m	1,145	1,596	2,100	2,689
Minority Interests	m	0	0	0	1	Minority Interests	m	1	1	2	2
Reported Earnings	m	423	408	423	343	Reported Earnings	m	1,146	1,597	2,101	2,691
Adjusted Earnings	m	423	408	423	343	Adjusted Earnings	m	1,146	1,597	2,101	2,691
EPS (rep)		14.74	11.40	11.81	9.57	EPS (rep)		42.55	46.91	58.65	75.13
EPS (adj)		14.74	11.40	11.81	9.57	EPS (adj)		42.82	47.51	58.65	75.13
EPS Growth yoy (adj)	%	44.2	2.1	-22.5	54.4	EPS Growth (adj)	%	91.2	11.0	23.4	28.1
						PE (rep)	x	25.7	23.3	18.6	14.6
						PE (adj)	x	25.5	23.0	18.6	14.6
EBITDA Margin	%	24.1	21.9	21.9	15.3	Total DPS		2.00	2.00	3.00	4.00
EBIT Margin	%	16.5	14.1	14.5	9.7	Total Div Yield	%	0.2	0.2	0.3	0.4
Earnings Split	%	26.5	25.6	26.5	21.5	Basic Shares Outstanding	m	26	36	36	36
Revenue Growth	%	5.5	12.5	12.5	71.1	Diluted Shares Outstanding	m	27	34	36	36
EBIT Growth	%	41.1	24.9	4.1	89.0						
Profit and Loss Ratios					Cashflow Analysis						
		2020A	2021E	2022E	2023E		2020A	2021E	2022E	2023E	
Revenue Growth	%	-4.7	23.9	17.4	17.4	EBITDA	m	2,594	3,324	4,206	5,035
EBITDA Growth	%	17.5	28.1	26.5	19.7	Tax Paid	m	-4	-84	-461	-715
EBIT Growth	%	20.0	32.3	30.7	23.7	Chgs in Working Cap	m	942	1,138	1,349	1,500
Gross Profit Margin	%	54.7	54.6	54.9	55.3	Net Interest Paid	m	-779	-796	-600	-450
EBITDA Margin	%	19.6	20.3	21.9	22.3	Other	m	-311	-1,066	-1,164	-1,664
EBIT Margin	%	12.5	13.4	14.9	15.7	Operating Cashflow	m	2,442	2,517	3,329	3,707
Net Profit Margin	%	8.7	9.8	10.9	11.9	Acquisitions	m	-1,050	0	0	0
Payout Ratio	%	4.7	4.2	5.1	5.3	Capex	m	-2,689	-2,129	-2,115	-1,897
EV/EBITDA	x	13.0	13.4	10.6	8.8	Asset Sales	m	13	0	0	0
EV/EBIT	x	20.3	20.4	15.6	12.6	Other	m	138	50	50	50
Balance Sheet Ratios						Investing Cashflow	m	-3,588	-2,079	-2,065	-1,847
ROE	%	11.2	11.7	12.1	13.7	Dividend (Ordinary)	m	-129	-52	-72	-107
ROA	%	8.0	8.9	10.0	11.3	Equity Raised	m	298	86	0	0
ROIC	%	12.4	12.8	12.9	14.3	Debt Movements	m	1,636	0	0	0
Net Debt/Equity	%	48.7	10.9	6.5	-0.5	Other	m	-855	3,044	-600	-450
Interest Cover	x	2.1	2.7	4.8	7.9	Financing Cashflow	m	949	3,079	-672	-557
Price/Book	x	2.6	2.4	2.1	1.9	Net Chg in Cash/Debt	m	-197	3,517	592	1,303
Book Value per Share		419.7	455.9	512.5	584.6	Free Cashflow	m	-247	388	1,214	1,810
						Balance Sheet		2020A	2021E	2022E	2023E
						Cash	m	560	4,077	4,669	5,972
						Receivables	m	2,265	2,866	3,365	3,952
						Inventories	m	2,797	3,494	4,076	4,744
						Investments	m	1,099	1,099	1,099	1,099
						Fixed Assets	m	8,893	9,883	10,650	11,047
						Intangibles	m	3,651	3,651	3,651	3,651
						Other Assets	m	2,270	2,270	2,270	2,270
						Total Assets	m	21,535	27,340	29,780	32,734
						Payables	m	2,161	2,493	2,901	3,269
						Short Term Debt	m	3,538	3,538	3,538	3,538
						Long Term Debt	m	2,327	2,327	2,327	2,327
						Provisions	m	124	124	124	124
						Other Liabilities	m	2,483	2,486	2,490	2,494
						Total Liabilities	m	10,633	10,968	11,380	11,752
						Shareholders' Funds	m	10,859	16,331	18,360	20,944
						Minority Interests	m	43	42	40	38
						Other	m	0	0	0	0
						Total S/H Equity	m	10,902	16,372	18,400	20,982
						Total Liab & S/H Funds	m	21,535	27,340	29,780	32,734

All figures in INR unless noted.

Source: Company data, Macquarie Research, October 2020

## Important disclosures:

## Recommendation definitions

## Macquarie – Asia and USA

Outperform – expected return >10%  
Neutral – expected return from -10% to +10%  
Underperform – expected return <-10%

## Macquarie – Australia/New Zealand

Outperform – expected return >10%  
Neutral – expected return from 0% to 10%  
Underperform – expected return <0%

Note: expected return is reflective of a Medium Volatility stock and should be assumed to adjust proportionately with volatility risk

## Volatility index definition\*

This is calculated from the volatility of historical price movements.

**Very high–highest risk** – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

**High** – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

**Medium** – stock should be expected to move up or down at least 30–40% in a year.

**Low–medium** – stock should be expected to move up or down at least 25–30% in a year.

**Low** – stock should be expected to move up or down at least 15–25% in a year.

\* Applicable to select stocks in Asia/Australia/NZ

## Recommendations – 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

## Financial definitions

All "Adjusted" data items have had the following adjustments made:

Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense  
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa\*

ROA = adjusted ebit / average total assets

ROA Banks/Insurance = adjusted net profit / average total assets

ROE = adjusted net profit / average shareholders funds

Gross cashflow = adjusted net profit + depreciation

\*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

## Recommendation proportions – For quarter ending 30 Sept 2020

	AU/NZ	Asia	USA	
Outperform	56.27%	63.55%	63.04%	(for global coverage by Macquarie, 4.95% of stocks followed are investment banking clients)
Neutral	29.49%	21.61%	36.96%	(for global coverage by Macquarie, 4.25% of stocks followed are investment banking clients)
Underperform	14.24%	14.84%	0.00%	(for global coverage by Macquarie, 2.37% of stocks followed are investment banking clients)

## SOLARA IN vs BSE Sensex, &amp; rec history



(all figures in INR currency unless noted)

Note: Recommendation timeline – if not a continuous line, then there was no Macquarie coverage at the time or there was an embargo period.

Source: FactSet, Macquarie Research, October 2020

## 12-month target price methodology

SOLARA IN: Rs1,680.00 based on a EV/EBITDA methodology

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Date	Stock Code (BVG code)	Recommendation	Target Price
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## Target price risk disclosures:

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## Sensitivity analysis:

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