

China Solar Sector

Brace for a potential demand shock

As WHO declared COVID-19 pandemic, we think fundamentals of PV demand will likely suffer impacts in overseas and China markets. We cut our global PV installation outlook by 13.7% from 145GW to 125GW in 2020. Our concerns shift from supply disruption to a demand shock in several major PV market, including Europe, US, Japan, Korea, and India. Based on preliminary estimates, we expect 2 months' installation stall in those key markets will lead to ~7% demand loss. Moreover, we also trim our PV installation outlook in China from 45GW to 34.5GW. We think price war will come soon with a start from module in April.

- **Brace for potential demand shock.** After supply disruption of ~1.5 months from China, we are now foreseeing impacts from the demand side due to virus outbreak. We expect major PV market including Europe, US, Korea, Japan and India with aggregate demand of 59.4GW, accounting for 41.0% of our previous global demand projection, is facing risks of construction stall, as infection figures rise quickly. Based on a 2-month lockdown assumption, we expect major overseas market may have demand loss of 9.9GW in Apr – Jun. (See demand loss assessment in Figure 1)
- **Trim China PV installation outlook to 34.5GW.** NEA's PV development policy in 2020 released on 10 Mar largely follows the rules set up in 2019, but tariffing bidding submission deadline is set unexpected late at 15 Jun, only 15 days earlier than 2019. We see high uncertainties from postponed grid-parity projects and new tariff bidding project in 2020, as we believe developers may need longer time to prepare for those projects. We also expect tariff cutoff timeline will be extend by one quarter to 30 Jun/30 Sep in 2020. As such, we cut our China PV installation outlook from 45GW to 34.5GW (see est. break down in Figure 2).
- **Cut global PV installation outlook by 13.7% to 125GW.** Our forecast is more conservative comparing with peers (130-140GW), implying only 4.2% demand growth in 2020. Since major manufacturers in the supply chain has more than 15% supply capacity growth in 2020, we expect price war will come earlier in April, and we had observed pricing slash in the recent tender.
- **Not yet time to bottom fish.** After panic sell-off, solar names have share price largely return to year begin level. We believe market has not yet priced in the potential demand shock. We expect price war will be a trigger for market reshuffle earlier than expected based on financial health and technology selection (e.g. 166mm vs. 210mm, and PERC vs. HJT). We suggest to stay at the sidelines and brace for a potential demand shock.

MARKET PERFORM (Maintain)

China Solar Sector

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Figure 1: Brief assessment for demand loss in key markets in 2020

(GW)	2020E Initial installtion est.	1 month's impact	2 months' impact	3 months' impact	Infection number
Europe	21.0	(1.8)	(3.5)	(5.3)	29,881
US	18.2	(1.5)	(3.0)	(4.6)	1,731
Korea	2.2	(0.2)	(0.4)	(0.6)	7,979
Japan	8.0	(0.7)	(1.3)	(2.0)	691
India	10.0	(0.8)	(1.7)	(2.5)	74
Total	59.4	(5.0)	(9.9)	(14.9)	
As % to global / demand cut	41.0%	-3.4%	-6.8%	-10.2%	
Global	145.0				

Source: CMBIS estimates

Note: Infection number extracted at 12:00, 13 Mar 2020.

Figure 2: We trim China PV installation projection to 34.5GW in 2020

Project type -(GW)	2019E	2020E
Distributed PV	12.2	11.5
Household rooftop	4.3	6.5
C&I rooftop - tariff bidding	1.7	3.0
C&I rooftop - grid parity	1.6	2.0
Poverty Alleviation	4.6	0.0
Ground mounted	17.9	23.0
Tariff bidding - 2019	8.3	9.0
Tariff bidding - 2020	n/a	5.0
Grid Parity - 2019	5.9	3.0
UHV and demonstration	3.7	4.5
Lead runner	0.0	1.5
Total	30.1	34.5

Source: CMBIS estimates

Figure 3: Solar sector valuation

Ticker	Company	Market cap (US\$, mn)	Stock price (Local currency)	YTD (%)	EPS			PER			PBR		
					18	19E	20E	18E	19E	20E	18E	19E	20E
Polysilicon & cell													
600438 CH	TONGWEI CO-A	8,163	14.69	11.9	N/A	0.7	1.0	N/A	19.7	14.7	3.8	3.2	2.7
DQ US	DAQO NEW ENE-ADR	702	52.85	3.2	2.2	2.0	9.6	4.9	26.2	5.5	1.2	1.3	1.0
600732 CH	SHANGHAI AIKO-A	2,158	8.24	5.8	N/A	0.3	0.7	N/A	25.2	12.6	N/A	6.2	4.8
Mono Silicon Wafer													
601012	LONGI GREEN EN-A	15,008	27.8	12.0	N/A	1.4	1.7	N/A	20.6	16.7	5.5	4.2	3.4
002129	TIANJIN ZHONG-A	7,442	18.67	58.1	N/A	0.4	0.6	N/A	46.0	30.2	4.5	3.4	3.0
Module													
JKS US	JINKOSOLAR-ADR	800	17.81	-20.8	10.6	19.6	27.7	5.4	6.4	4.5	0.6	0.6	0.5
CSIQ US	CANADIAN SOLAR I	968	16.28	-26.3	4.0	1.8	2.9	4.2	9.1	5.6	0.8	0.7	0.6
002459 CH	JA SOLAR TECHN-A	2,884	15.02	34.3	N/A	0.8	1.1	N/A	18.7	14.1	N/A	4.1	3.2
002506	GCL SYSTEM INT-A	3,942	5.42	-8.3	N/A	0.0	0.0	N/A	678	258	6.5	7.3	7.1
PV glass													
968 HK	XINYI SOLAR HLDS	5,314	5.45	-7.6	N/A	0.3	0.4	N/A	16.8	12.8	3.3	2.9	2.5
6865 HK	FLAT GLASS GRO-H	2,888	5.24	1.7	N/A	0.4	0.5	N/A	12.8	8.6	2.3	2.0	1.7
601865 CH	FLAT GLASS GRO-A	2,888	12.04	-0.7	N/A	0.4	0.6	N/A	31.7	21.2	1.8	5.3	2.3
Inverter													
300274	SUNGROW POWER -A	2,467	11.83	12.3	N/A	0.7	0.9	N/A	17.6	13.7	2.2	2.0	1.8
300763	NINGBO GINLONG-A	726	63.38	52.6	N/A	1.6	3.0	N/A	40.4	21.4	N/A	6.7	5.2
EVA													
603806	HANGZHOU FIRST-A	3,290	43.99	-9.5	N/A	1.5	1.8	N/A	29.4	24.9	3.9	3.7	3.4

Source: Bloomberg, CMBIS

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