Regional Industry Focus

Regional Plantation Companies

Refer to important disclosures at the end of this report

DBS Group Research . Equity

21 Mar 2022

Beyond the Black Sea

- We raise our FY22 and FY23 Indonesia's palm oil price forecast to US$850 per MT (net) to account for global supplies hiccup, new export charges
- Vegetable oil supply hiccup is beyond the Black Sea's sunflower supply bottleneck
- No major supplies seen to disrupt prices
- Maintain BUY for FR, BAL, WIL, and LSIP

Raise CPO price assumptions. We raise our FY22 Indonesia's average CPO price forecast to US$850 in FY22 and FY23; meanwhile, we raise our long-term CPO price assumption to US$700 per MT. Our CPO price assumption sufficiently anticipated the new export levies and tax for CPO price benchmark above US$1,000 per MT in April 22 onward. Tight soybeans supply outlook on drought season in South America will only help current edible oils high prices to stay for a while, on top of tension in the Blacksea.

High CPO price will last into 2H. We believe high CPO price is not just war related and can sustain into 2H22. A key demand driver is Indonesia's biodiesel programme, which is expected to absorb 8m MT of CPO this year despite the current high prices. Indonesia has a balance of US$2.5bn in the CPO Fund and a higher Brent crude oil price means a smaller CPO Fund requirement per litre of biodiesel produced.

Moderate output expansion to support CPO price in 2022. We do not see any major output expansion prospects in 2022 and 2023. Palm oil companies guided flat to high single-digit output growth in 2022 and we believe it reflects the plateauing output from Indonesia due to ageing estates and poor maintenance in 2017-2019 amid the low CPO price trend.

First Resources (FR) and Wilmar (WIL) are our top picks for plantation universe. The compelling valuation amid the rising earnings trend means the share price has room to rally further. We raise FR's and BAL's TPs to S$2.5 and S$1.0, respectively, while also raising Lonsum (LSIP)'s TP to Rp2,000 per share. We still like Wilmar and maintain our TP of S$6.67, as we believe Wilmar's consumer expansion is underpriced for now due to concerns about higher raw material cost.

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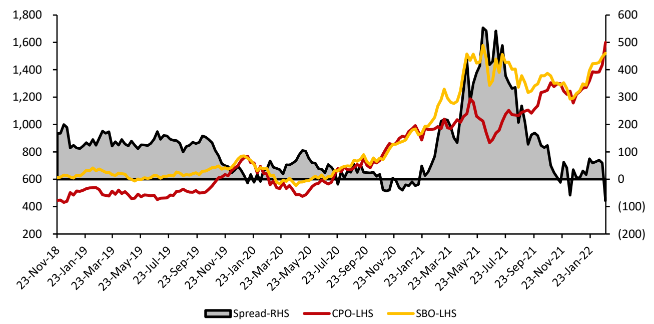
STOCKS

	Price	Mkt Cap US$m	12-mth Target Price (Rp)	Performance (%) 3 mth	12 mth	Rating
Indonesia (Rp)						
Astra Agro Lestari	12,000	1,611	12,500	22.1	8.6	HOLD
London Sumatra	1,400	666	2,000	15.2	(2.4)	BUY
Singapore (S$)						
Bumitama Agri	0.75	959	1.00	44.2	57.9	BUY
First Resources	1.97	2,290	2.50	34.9	38.7	BUY
Wilmar International	4.62	21,443	6.67	13.2	(12.7)	BUY

Source: DBSVI, Bloomberg Finance L.P.
Closing price as of 18 Mar 2022

Tight vegetable oils supply outlook will support CPO price to stay at current decent levels



Source: Bloomberg Finance L.P, DBSVI

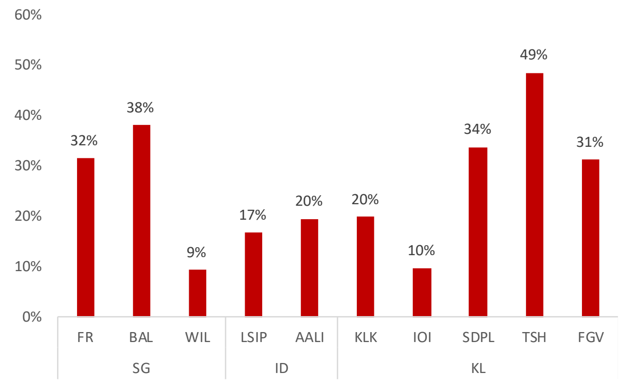
Headroom for palm oil stocks to perform

Even after the share prices have already climbed double digits year-to-date (YTD), we see that the palm oil stocks still has "legs" to rally further due to limited room for supply expansion and the earnings growth outlook in 2022 following a strong performance in 2021.

We raise our FY22 Indonesia's average CPO price forecast to US$850 in FY22 and FY23; meanwhile, we raise our long-term CPO price assumption to US$700 per MT. Our CPO price assumption sufficiently anticipated the new export levies and tax for CPO price benchmark above US$1,000 per MT in April 22 onward.

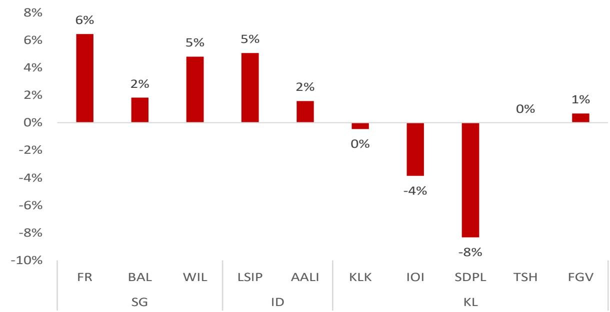
While the Ukraine-Russia war has propelled commodity prices including CPO to skyrocket, we believe high CPO price is not just war related and can sustain into 2H22. A key demand driver is Indonesia's biodiesel programme, which is expected to absorb 8m MT of CPO this year despite the current high prices. Tight soybeans supply outlook due to drought season in South America will also help current edible oils high prices to stay for a while, on top of tension in the Black sea.

Palm oil stocks performance YTD – 2022



Source: Bloomberg Finance L.P, DBSVI

Palm oil stocks performed modestly despite good CPO price in 2021



Source: Bloomberg Finance L.P, DBSVI

Valuation: PE multiple doesn't reflect supercycle sentiment

Despite the positive share price performances, the record-high vegetable oil price does not translate into a record-high share price for now. Investors are viewing the current high vegetable oil price as temporary and are waiting to see the impact of Indonesia's additional export taxes and levies that regulate new price range of US$1,001 per MT -US$1,500 per MT in April 2022 onward on planters' selling price in 2022, despite DMO and Domestic Price Obligation (DPO) revoked. We previously stated here that the impact on companies' selling price is US$675 per MT of potential pricing discount to US$1,500 per MT of Malaysia CPO price benchmark.

Within the scenario of a US$850 per MT selling price and Malaysia's benchmark price of US$1,125 per MT, palm oil stocks are still trading below its five-year average mean PE. We believe that Indonesia and Singapore-listed plantation companies' valuations are attractive and have not priced in the earnings growth outlook in 2022.

Concerns over whether the previous Domestic Market Obligation (DMO) and Domestic Price Obligation (DPO), and now the additional taxes and levies schemes for higher CPO price ranges may cap planters' selling price and hinder major earnings growth in 2022 is one of the key factors in our view. However, Indonesia's domestic CPO price in Jan-Mar 22 averaged at Rp15,000/kg, 45% y-o-y higher vs. last year. Even after the price adjusted to new additional taxes and levies, we estimate April 2022 Indonesia domestic CPO price will be at least at Rp11,800/kg (+13% y-o-y).

Indonesian planters' PE multiples have de-rated far away from its five-year average PE multiple and we believe this is due to their ageing estates. LSIP and AALI have 16-17-year-old estates on average, which are older than that of FR and BAL, which are 13-14 years old. We prefer palm oil companies with prime age cycle estates, on the back of sustaining high yield and strong profitability prospect.

Looking at the Singapore PE band charts, we note some skewing in Wilmar's due to market capitalization. Wilmar is trading at around a FY22 PE of 12x, around its five-year average multiple. Meanwhile, BAL and FR are trading at around 7.8x and 12.5x PEs, which are -1 standard deviation of their five-year average PE multiple of 10x and 15x, respectively.

FR and WIL are our top pick in plantation universe, while we maintain our BUY rating for BAL and LSIP. FR and WIL are our top pick for plantation universe since we believe FR prime age palm oil estates will continue to bear higher CPO yield performance vs. peers which results in strong profitability and ROE trend. FR can capitalize the higher CPO prices better than other planters, in our view.

Meanwhile, we believe the concern over Wilmar earnings performance in 2022 is well priced in. We expect Wilmar will continue to produce good profitability performance especially from its vegetable refining division. Wilmar is trading around plantation companies PE multiple of 11x-12x which is undervaluing its integrated business platform, as well as its expansion to further downstream into consumer branded and central kitchen businesses.

Meanwhile we maintain our BUY rating for BAL and LSIP since both counters are trading at undemanding valuation. We believe BAL and LSIP PE multiple should re-rate from current single digit PE multiple due to positive earnings growth prospect this year.

Earnings expected to grow in 2022 after strong 2021 performance

We revise up our earnings forecast by 27%/25% on average in 2022/2023, and we see that palm oil companies' earnings have room to further grow this year, even though last year was a record-breaking year for some of the counters. 2021 was a good year for palm oil companies due to strong CPO prices, despite the weaker-than-expected production performance. CPO companies beat our expectations by 10%-20% on average last year.

We forecast 15%-20% y-o-y earnings growth in 2022 on higher palm oil selling prices. At our Indonesia's domestic selling price to average at US$850 per MT (+8% y-o-y), companies average selling prices are likely to trend higher y-o-y on all the counters despite the additional levies and taxes if palm oil benchmark price to stay at above US$1,000 per MT.

Special mention needs to be made of BAL and FR, since last year both only achieved estimated selling price of US$700 per MT, since its 1H21 selling prices were hit by unfavourable price hedging. We estimate both CPO selling prices only reached Rp8,700 per kg/US$600 per MT in 1H21, vs. the domestic CPO price of Rp10,400 per kg/US$706 per MT.

Meanwhile, AALI and LSIP also set to achieve higher earnings y-o-y mainly on the absence of non-operational losses. Each booked derivative losses and asset impairment for Rp383bn and Rp420bn last year, respectively, despite both successfully leveraging the high Indonesia's domestic CPO price of US$796 per MT with average selling price of Rp11,300/kg to boost earnings performance amid the tumbling production trend.

We forecast production will only expand by single digits growth, 3%-5% y-o-y in 2022, which is in line with the industry's view that palm oil production will only expand modestly this year after suffered from negative to flat production y-o-y in 2021. Higher production trend will help palm oil companies to combat cost escalation, especially for fertilisers.

We believe palm oil companies could weather the higher fertiliser cost well. Besides, as the current palm oil prices are still decent for earnings performance, companies with high yield per hectare could minimise the impact on higher cost per ton in 2022. We previously already considered higher fertiliser cost in 2022. Hence, we only revise up our FY22 overall cost structure a bit. Palm oil companies already secured at least 50% of their fertiliser needs this year and so far, companies' cash cost guidance is largely in line with our forecast.

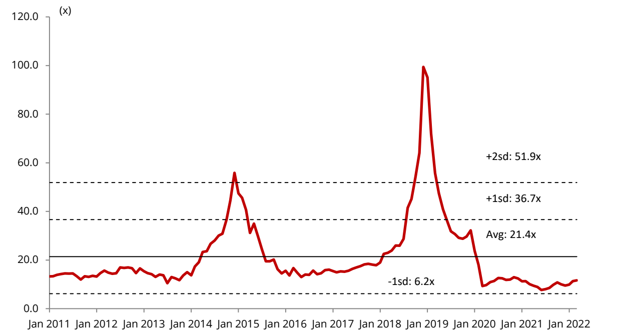
We believe Wilmar could sustain its strong earnings performance in 2022. Food products may suffer from margin pressure due to rising cost, but we believe Wilmar's vegetable oil refining division will continue to perform well in 2022. We forecast earnings to stay around US$1.9bn (+2% y-o-y) in 2022, mainly on the back of a good vegetable oil refining margin on top of an improving soybean crushing volume and margin. Strong margin performance also will support Wilmar's ROE to stay above 9% in 2022, higher than 2011-2020 level of 7%.

Earnings revision summary

	R	Prev. CY22F EPS	Prev. CY23F EPS	New CY22F EPS	New CY23F EPS	CY22F EPS rev.	CY23F EPS rev.	Prev. TP	New TP	TP rev.
Indonesia (EPS/TP)										
Astra Agro Lestari (Rp)	H	983	987	1,391	1,292	41%	31%	10,400	12,500	20%
London Sumatra (Rp)	B	157	174	179	181	14%	4%	1,700	2,000	18%
Singapore (EPS/TP)										
Bumitama Agri (Rp/S$)	B	842.0	874.8	1,081	1,171	28%	34%	0.70	0.75	7%
First Resources (US¢/S$)	B	9.2	9.4	12.3	13.1	33%	39%	1.83	2.50	37%
Wilmar Int'l (US¢/S$)	B	25.4	26.4	29.6	30.9	16%	17%	6.67	6.67	0%

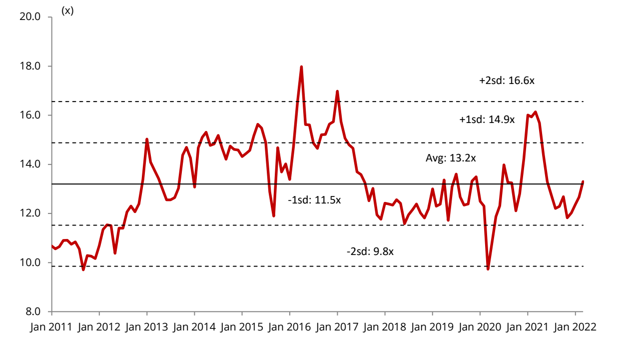
Source: Bloomberg Finance L.P., Company, DBSV

Indonesian CPO stocks are trading below their decade-long mean PE multiple



Source: Company, DBSVI

FR & BAL are trading below their decade-long mean PE, meanwhile Wilmar is trading around its avg PE level



Source: Company, DBSVI

Peer comparison

	Est. total land bank (ha.)	FY21 own mat. (ha.)	FY21 own planted (ha.)	Share price 21-March-2022	Market cap (m)	Adjusted plantation EV (m)	Adjusted 21F EV/planted (own)	Adjusted 21F EV/mature (own)	CY PER, x 22F	CY PER, x 23F	FY Div. yield, % 22F	FY Div. yield, % 23F	EPS growth (inc. BA gains), % 22F	EPS growth (inc. BA gains), % 23F	FY Net gearing, % 22F	FY Net gearing, % 23F	FY EV/ EBITDA, x 22F	FY EV/ EBITDA, x 23F	21-23F own FFB vol CAGR %	20-23F EPS CAGR %	Rec	12-month target price	Basis
Indonesia																							
Astra Agro L.	242,335	192,025	214,498	Rp 12,000	US$ 1,611	US$ 1,948	US$ 9,082	US$ 10,145	8.6	9.3	3.3	4.4	35.8	-7.2	0	0	6.1	4.5	2.0	12.3	H	Rp 12,500	DCF
London Sum.*	99,547	85,630	93,853	Rp 1,400	US$ 666	US$ 566	US$ 6,031	US$ 6,610	7.8	7.7	4.2	5.2	42.4	1.1	NC	NC	5.2	3.0	4.4	11.8	B	Rp 2,000	DCF
Simple avg					**US$ 1,944**		**US$ 7,557**	**US$ 8,378**	**8.2**	**8.5**							**5.7**	**3.7**					
Singapore																							
Bumitama A.	191,561	126,582	132,728	S$ 0.75	US$ 959	US$ 1,392	US$ 10,488	US$ 10,997	7.3	6.7	4.9	4.9	10.3	8.3	5	0	5.5	4.4	4.2	9.3	B	S$ 1.00	DCF
First Resource	196,742	162,560	178,733	S$ 1.97	US$ 2,290	US$ 2,569	US$ 14,372	US$ 15,801	11.9	11.3	1.7	1.9	20.5	5.5	15	3	7.0	6.8	4.7	12.7	B	S$ 2.50	DCF
Wilmar Int'l	269,335	208,054	230,480	S$ 4.62	US$ 21,443	US$ 2,140	US$ 9,285	US$ 10,286	11.6	11.1	3.5	3.6	0.3	4.4	79	72	10.9	11.3	0.9	2.3	B	S$ 6.67	SOTP
Simple avg					**US$ 8,231**		**US$ 11,381**	**US$ 12,361**	**10.2**	**9.7**							**7.8**	**7.5**					

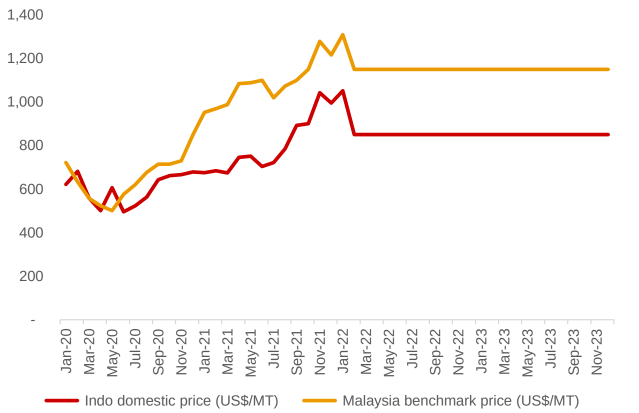
**Including rubber and other crops*
***Excluding effective stake in associates land bank*

Source: Companies, Bloomberg Finance L.P., DBSVI

Raising CPO price assumption

We raise our CPO price assumption to US$850 per MT in FY22 and FY23. Meanwhile, we are also raising our long-term CPO price forecast slightly to US$700 per MT from 2024 onward. We believe Indonesia's DMO and DPO added supply pressures to the existing global vegetable oil supply shortage amid weaker-than-expected palm oil and soybean oil supplies in 4Q21.

Indonesia's export levies and taxes for CPO impact to the domestic CPO price trend



Source: Bloomberg Finance L.P, EBTKE, DBSVI

Our CPO price is Indonesia's domestic CPO price, anticipated higher levies and taxes of US$575 per MT total if CPO price benchmark stay above US$1,500 per MT. Currently, we based our levies and taxes assumption at US$175 per MT and US$200 per MT if CPO price reach above US$1,000 per MT. Our assumption implies Malaysia's CPO price benchmark to be at US$1,125 per MT (RM4,400/MT).

The benchmark price assumption is lower than the YTD average of US$1,400 per MT, as we believe the current high price has two unusual factors – the Ukraine-Russia war and Indonesia's domestic cooking oil shortage. We believe both events will gradually dissipate in 2H22, coupled with seasonal stronger CPO production in Indonesia and Malaysia.

Indonesia's export levies and taxes for CPO

CPO price benchmark	Export levies (US$ per MT)
Existing levies structures	
< US$750 per MT	55
US$751 per MT - US$800 per MT	75
US$801 per MT - US$850 per MT	95
US$851 per MT - US$900 per MT	115
US$901 per MT - US$950 per MT	135
US$951 per MT - US$1,000 per MT	155
US$1,001 per MT - US$1,050 per MT	175
US$1,051 per MT - US$1,100 per MT	195
US$1,101 per MT - US$1,150 per MT	215
US$1,151 per MT - US$1,200 per MT	235
US$1,201 per MT- US$1,250 per MT	255
US$1,251 per MT - US$1,300 per MT	275
US$1,301 per MT - US$1,350 per MT	295
US$1,351 per MT - US$1,400 per MT	315
US$1,401 per MT- US$1,450 per MT	335
US$1,451 per MT - US$1,500 per MT	355
> US$1,500 per MT	**375**

	CPO price benchmark (US$ per MT)	Export tax (US$ per MT)
May-21	1,160	144
Jun-21	1,224	183
Jul-21	1,094	116
Aug-21	1,048	93
Sep-21	1,185	166
Oct-21	1,196	166
Nov-21	1,283	200
Dec-21	1,366	200
Jan-22	1,308	200
Feb-22	1,314	200
Mar-Apr 22	**> 1500**	**200**

Source: MOF, News Article, DBSVI

Despite our forecast that the price will gradually taper from its current record-high level, the downtrend slope wouldn't be severe, as the production growth outlook in Indonesia and Malaysia will remain subdued by weather, especially in 1H22; and in Indonesia, a prolonged low CPO price would trigger poor fertiliser application and result in subdued yield performance.

Bull case scenario for Palm Oil price if war extends beyond six months

Our assumption is based on a scenario that the Ukraine-Russia tensions will gradually dissipate in the next three to six months. However, if the conflict fails to get resolved, we see that the CPO price benchmark could stay at least around the US$1,400-1,600 per MT level, and Indonesia's domestic CPO price around the US$1,000 per MT-US$1,100 per MT, higher than our forecast of US$850 per MT.

Our bull case scenario implies the CPO price will be very competitive to the soybean oil price, The prolonged sunflower oil supplies disruption will provide a strong foothold for soybean oil as well as palm oil prices to stay at the current record-high levels. Major exporting ports will remain closed for sunflower oil exports from Ukraine.

Furthermore, with our bull case Brent crude oil price of US$180-US$200 per bbl, due to the fear of stifled Nord Stream I gas supplies may keep oil and gas prices at the above our assumption of US$90-100 per bbl level. With a higher crude oil price scenario, Indonesia's domestic biodiesel price will be at break-even level with CPO, thus Indonesia should relax additional levies and taxes thus narrowing domestic CPO price vs benchmark prices.

Palm oil supply and demand summary

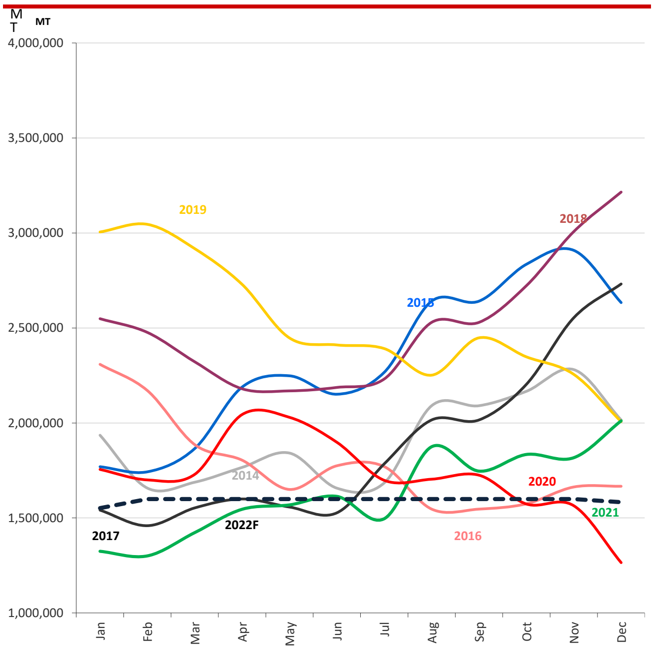
	CPO price (US$/MT) FOB	Ending Stocks (k MT)	Global demand (k MT)	Global supply (k MT)	Stock/ usage ratio (%)
2016	640	9,890	62,341	58,875	15.9%
2017	645	12,890	65,250	68,250	19.8%
2018	575	14,850	70,090	72,050	21.2%
2019	500	12,680	78,670	76,500	16.1%
2020	667	14,500	72,340	74,160	20.0%
2021	796	11,767	75,230	72,497	15.6%
2022F	850	11,344	72,856	72,434	15.6%
2023F	850	11,120	73,524	73,300	15.1%
2024F	701	11,089	75,082	75,051	14.8%
2025F	701	12,406	77,504	78,821	16.0%
2026F	701	13,524	80,381	81,498	16.8%
2027F	701	13,108	83,883	83,467	15.6%
2028F	701	13,581	84,477	84,949	16.1%
2029F	701	13,642	86,326	86,387	15.8%
2030F	701	14,343	86,680	87,381	16.5%

Source: Oil World, DBSVI

Malaysia's inventory expected to stay at around 1.5m MT-1.7m MT in 2022

Malaysia's inventory is likely to remain low this year, considering the weaker than expected production in Jan-Feb 2022. Moreover, Malaysia's export volume has room to perform better than expected in March and April 2022, thus keeping the inventory level at around 1.5m MT-1.7m MT, below our previous expectation of around 1.8m MT-2.0m MT. Note that until February 2022, Malaysia's CPO stocks reached only 1.5m MT.

Malaysia's CPO stockpile expected to stay at 1.5m MT-1.7m MT in 2022 (Feb 2022 1.5m MT)



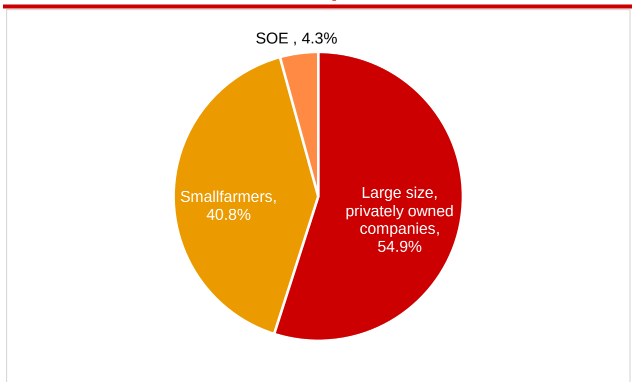
Source: MPOB, DBSVI

Raising long term CPO price assumption to US$700 per MT

We raise our long-term CPO price forecast slightly to US$700 per MT vs. previously US$687 per MT driven by higher biodiesel production from Indonesia. Meanwhile, we reiterate our view that CPO supply expansion potential will be limited in the next couple of years mainly on ageing tree issues in Indonesia. We forecast Indonesia to lose 2m MT of CPO production from 2023 onwards mainly on declining production trend from the small farmers and state-owned enterprise (SOE) palm oil company PTPN.

We are convinced that the expansion of the limited supply of palm oil is a structural issue and the currently expensive fertiliser may pose risks to the younger trees' generation yield prospect in the future.

Indonesia CPO estates composition

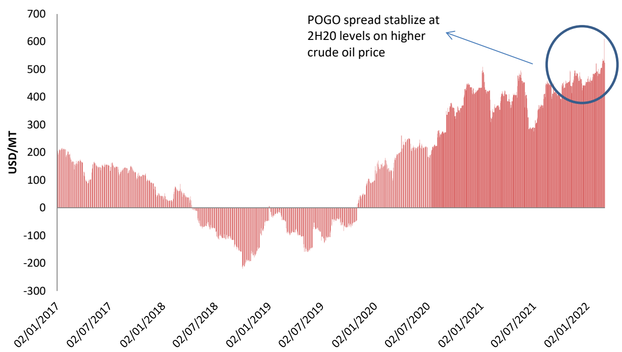


Source: Indonesia Statistical Bureau, Ministry of Forestry and Agri of Indonesia, GAPKI, DBSVI

Crude oil price trend is supportive for CPO price

DBS raises FY22 and FY23 Brent crude oil price forecast to US$95-100 per bbl, with a positive strong crude oil price trend supporting fuel-based consumption. Indonesia's biodiesel was priced at Rp13,800 per litre in January 2022, which was at par with Indonesia's domestic CPO price, which is currently at around Rp14,500/kg.

Palm oil premium to gasoil held steady due to rising crude oil price trend



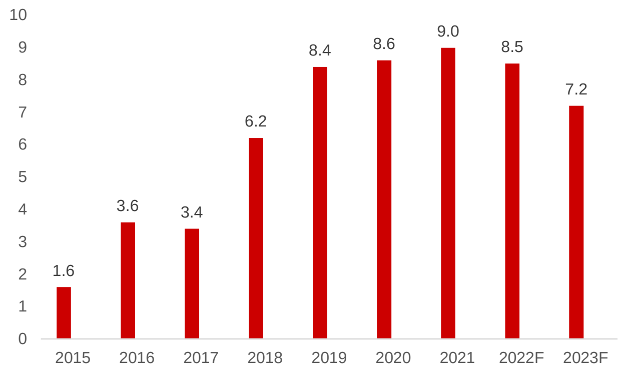
Source: Bloomberg Finance L.P, DBS Bank

The higher crude oil price means that less incentives from the CPO Fund are required to bridge the oil price and palm oil price spread. Moreover, given the progressive export levies scheme, Indonesia collected US$4.7bn for its CPO Fund last year, which, we believe, is sufficient to finance at least 8.5m KL of biodiesel this year (2021 production was at 8.9m KL). This year, given the export levies of US$175 per MT and at CPO price benchmark assumption of US$1,125 per MT (above US$1,000 per MT), we believe Indonesia will collect around US$4.7bn in its CPO Fund, which will help Indonesia tame any weaker-than-expected CPO prices in 2022 and 2023.

Biodiesel commitment to sustain also, as retail petrol stations in West Java now only offer biodiesel, hence the stickiness of its production is beyond the palm oil price factor.

We raise Indonesia's biodiesel consumption to 8.5m KL from 8.2m KL previously. We only raise our biodiesel production estimate slightly, considering Indonesia's domestic cooking oil shortages. Higher biodiesel production will only happen if the palm oil price drops steeply and the government boosts biodiesel blending to normalise prices, or if the crude oil price rises even further into higher territory. In January 2022, Indonesia's biodiesel production reached 900k KL, higher than the 2021 average monthly production of 760k KL.

We forecast Indonesia will continue to produce >8m KL of biodiesel in 2022



Source: APROBI, DBS Bank

Bull case scenario for vegetable oils if Ukraine-Russia tension extend beyond 6 months

Scenario	Soy oil Price Trajectory	Remarks/ Assumptions
Base Case Conflict is resolved within next 3-6 months with gradual withdrawal of sanctions	**Soybean oil price forecast :** Soybean oil US$1,250-US$1,470 per MT range to sustain over next 6 months	Low soybean crushing volumes in China and south America poor soybean harvest outlook will support soybean oil price to stay elevated even if conflict resolved
Bull Case Conflict drags on for 6 months or more with severe sanctions, disruptions and impact to supply chains	**Soybean oil price forecast:** US$1,500 per MT- US$1,600 per MT on higher than expected sunflower oil and Brent crude oil price. Price could reach US$1,700 per MT level in China's market.	Ukraine-Russia account for 76% on global sunflower oil supplies. High sunflower oil price from supplies disruption and high crude oil price means soybean oil price could stay at current record high level

Scenario	Palm Oil Price Trajectory	Remarks/ Assumptions
Base Case Conflict is resolved within next 3-6 months with gradual withdrawal of sanctions	**Malaysia's palm oil rice forecast:** US$1,100-,1,300/MT range to sustain over next 6 months,	Less war sentiment but poor soybean harvest outlook in south America and Indonesia biodiesel program will prevent further price reversal below our price scenario.
Bull Case Conflict drags on for 6 months or more with severe sanctions, disruptions and impact to supply chains	**Malaysia's palm oil price forecast:** US$1,400 per MT- US$1,600 per MT on higher than expected soybean oil price	Pro longed sunflower oil supplies disruption and high oil price will provide strong foothold for soybean oil, as well as palm oil price to stay at current record high level

Source: DBSVI estimate

We estimate Indonesia to collect US$5bn in levies per year from CPO exports

Indonesia palm oil volumes	2019	2020	2021	2022F	2023F	2024F	2025F
Indonesia's palm oil output (m MT)	48.4	51.5	47.4	53.9	49.7	45.9	41.9
Indonesia's dom. consumption (m MT)	12.3	13.6	15.1	16.8	18.6	20.5	22.7
growth	*10.8%*	*11.0%*	*10.9%*	*10.8%*	*10.7%*	*10.6%*	*10.5%*
GDP growth	*5.5%*	*5.7%*	*5.7%*	*5.7%*	*5.7%*	*5.7%*	*5.7%*
ratio to GDP growth	*2.0*	*1.9*	*1.9*	*1.9*	*1.9*	*1.9*	*1.8*
Indonesia's palm oil exports (m MT)	36.1	37.9	32.3	37.2	31.1	25.4	19.2
growth	*12.8%*	*4.8%*	*-14.8%*	*15.2%*	*-16.2%*	*-18.5%*	*-24.4%*

Indonesia biodiesel mandate estimates	2019	2020	2021	2022F	2023F	2024F	2025F
CPO price forecast (US $/MT, FOB)	525	633	1,085	1,125	1,125	800	800
Domestic CPO price (net of export levy) (US $/MT)	498	600	798	850	850	687	701
Biodiesel price (dom. CPO px + US $125) (US $/MT)	623	725	923	975	975	812	826
Crude oil price - Brent (US $/bbl)	60	65	64	95	75	75	75
Gas oil price (US $/MT)	513	550	545	770	623	623	623
Biodiesel & diesel fuel px-spread (subsidy needed) (US $	110	175	378	205	352	189	203
CPO export vol. subject to levy (m MT)	8.8	9.2	8.5	9.1	7.6	6.2	4.7
share of export vol.	*24%*	*24%*	*24%*	*24%*	*24%*	*24%*	*24%*
CPO export levies - (US $ m)	441	462	1,700	1,587	760	619	468
Olein export vol. subject to levy (m MT)	27.3	28.6	26.0	28.1	23.5	19.2	14.5
share of export vol.	*76%*	*76%*	*76%*	*76%*	*76%*	*76%*	*76%*
Olein export levies - US $30/MT (US $ m)	819	859	3,120	3,372	1,647	1,343	1,015
Export levies collected (US $ m)	**1,260**	**1,320**	**4,720**	**4,959**	**2,407**	**1,963**	**1,483**
How much biodiesel can be produced (m MT)	11.461	7.534	12.498	8.453	6.839	6.232	7.307
How much biodiesel can be produced (m kl)	11.837	7.782	12.908	8.730	7.063	6.437	7.547
% effective blend	*44%*	*29%*	*48%*	*32%*	*26%*	*24%*	*28%*

Indonesia	2019	2020	2021	2022F	2023F	2024F	2025F
Transport diesel consumption (m litres)	27,140	27,092	27,092	27,179	27,267	27,355	27,443
in m MT	23.883	23.841	23.841	23.918	23.995	24.072	24.149
growth	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
GDP growth	*5.5%*	*-3.0%*	*0.0%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*
correlation	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*	*6%*
Biodiesel exports (m Klitres)	1,319	-	-	-	-	-	-
Domestic biodiesel PSO (m Klitres)	6,392	7,873	32,490	8,730	7,063	6,437	7,547
implied blend	*24%*	*29%*	*120%*	*32%*	*26%*	*24%*	*28%*
Domestic biodiesel non subsidised (m Klitres)	628	718	145	146	146	147	147
implied blend	*2%*	*3%*	*1%*	*1%*	*1%*	*1%*	*1%*
Chg. in inventory (m Klitres)	0	0	0	0	0	0	0
Total biodiesel produced (m litres)	**8,339**	**8,591**	**8,989**	**8,876**	**7,210**	**6,584**	**7,694**
growth	*35%*	*3%*	*5%*	*-1%*	*-19%*	*-9%*	*17%*
Nameplate capacity (m litres)	12,300	12,300	12,300	12,300	12,300	12,300	12,300
utilisation rate	*68%*	*70%*	*73%*	*72%*	*59%*	*54%*	*63%*
Indonesia palm oil production (MT)	47,180,000	51,500,000	47,400,000	49,086,947	49,697,677	45,920,266	41,871,232
growth	*9%*	*9%*	*-8%*	*4%*	*1%*	*-8%*	*-9%*
Palm oil required for biodiesel production (MT)	8,074,167	8,318,163	8,703,524	8,593,766	6,980,644	6,374,594	7,449,724
% energy recovery rate	*91%*	*91%*	*91%*	*91%*	*91%*	*91%*	*91%*
Non biodiesel palm oil consumption (MT)	6,771,356	6,568,216	6,765,262	6,832,915	6,969,573	7,108,964	7,251,144
growth	*6%*	*-3%*	*3%*	*1%*	*2%*	*2%*	*2%*
correlation to GDP	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*
Total domestic palm oil consumption (MT)	**14,845,523**	**14,886,379**	**15,468,786**	**15,426,681**	**13,950,217**	**13,483,558**	**14,700,868**
growth	*20%*	*0%*	*4%*	*0%*	*-10%*	*-3%*	*9%*
Indonesia palm oil available for exports (MT)	32,334,477	36,613,621	31,931,214	33,660,266	35,747,460	32,436,708	27,170,364
growth	*5%*	*13%*	*-13%*	*5%*	*6%*	*-9%*	*-16%*

Source: APROBI, Bloomberg Finance L.P, MEMR, GAPKI, Company, DBSVI estimate

We forecast flat CPO output growth in 2022

Oil palm planted area ('000 hectares)	2017A	2018A	2019A	2020	2021	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Mature	5,110.7	5,306.4	5,463.7	5,531.4	5,579.5	5,503.6	5,425.6	5,346.1	5,265.4	5,183.7	5,101.0	5,017.6	4,933.7	4,849.6
Immature	700.4	559.6	443.5	406.7	381.7	365.0	350.8	338.2	327.0	317.4	310.1	304.3	299.8	296.1
New planting	73.2	54.9	41.2	30.9	23.1	17.4	13.0	9.8	7.3	5.5	4.1	3.1	2.3	1.7
Malaysia	**5,811.1**	**5,866.0**	**5,907.2**	**5,938.0**	**5,961.2**	**5,868.6**	**5,776.4**	**5,684.3**	**5,592.4**	**5,501.1**	**5,411.0**	**5,321.9**	**5,233.5**	**5,145.7**
Mature	14,225.1	14,335.5	14,446.5	14,391.7	14,095.2	13,790.2	13,491.5	13,202.1	12,913.8	12,626.8	12,341.9	12,059.4	11,779.5	11,502.5
Immature	2,540.4	2,520.7	2,459.7	2,541.9	2,634.0	2,752.7	2,853.1	2,926.9	3,001.9	3,078.1	3,153.8	3,228.3	3,300.8	3,371.2
New planting	165.0	90.8	49.9	27.5	15.1	8.3	4.6	2.5	1.4	0.8	0.4	0.2	0.1	0.1
Indonesia	**16,765.5**	**16,856.2**	**16,906.2**	**16,933.6**	**16,729.1**	**16,542.9**	**16,344.6**	**16,128.9**	**15,915.7**	**15,704.9**	**15,495.7**	**15,287.6**	**15,080.3**	**14,873.7**
Mature	19,335.8	19,641.9	19,910.1	19,923.1	19,674.7	19,293.8	18,917.1	18,548.2	18,179.2	17,810.5	17,442.9	17,076.9	16,713.3	16,352.1
Immature	3,240.8	3,080.4	2,903.2	2,948.6	3,015.7	3,117.7	3,203.8	3,265.1	3,328.9	3,395.5	3,463.9	3,532.6	3,600.6	3,667.3
New planting	238.2	145.6	91.1	58.3	38.2	25.7	17.6	12.3	8.7	6.3	4.5	3.3	2.4	1.8
Total	**22,576.6**	**22,722.3**	**22,813.3**	**22,871.6**	**22,690.3**	**22,411.5**	**22,121.0**	**21,813.3**	**21,508.1**	**21,206.0**	**20,906.8**	**20,609.5**	**20,313.8**	**20,019.4**
% growth	*30.2*	*0.6*	*0.4*	*0.3*	*-0.8*	*-1.2*	*-1.3*	*-1.4*	*-1.4*	*-1.4*	*-1.4*	*-1.4*	*-1.4*	*-1.4*
		3.2	3.4	3.6	3.4	3.6	3.7	3.5	3.2	3.1	2.9	2.7	2.6	2.4
CPO production (m MT)	**2017A**	**2018A**	**2019A**	**2020**	**2021**	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**	**2027F**	**2028F**	**2029F**	**2030F**
Malaysia	**19.919**	**19.748**	**19.863**	**19.100**	**18.097**	**19.787**	**20.042**	**20.502**	**20.905**	**21.212**	**21.413**	**21.425**	**21.371**	**21.294**
vol. growth	*2.6*	*-0.2*	*0.1*	*-0.8*	*-1.0*	*1.7*	*0.3*	*0.5*	*0.4*	*0.3*	*0.2*	*0.0*	*-0.1*	*-0.1*
% growth	*15.0*	*-0.9*	*0.6*	*-3.8*	*-5.3*	*9.3*	*1.3*	*2.3*	*2.0*	*1.5*	*0.9*	*0.1*	*-0.3*	*-0.4*
Indonesia	**38.116**	**45.364**	**48.700**	**51.500**	**47.400**	**49.087**	**49.698**	**45.920**	**41.871**	**38.888**	**35.731**	**32.871**	**30.281**	**27.719**
vol. growth	*6.0*	*7.2*	*3.3*	*2.8*	*-4.1*	*1.7*	*0.6*	*-3.8*	*-4.0*	*-3.0*	*-3.2*	*-2.9*	*-2.6*	*-2.6*
% growth	*18.7*	*19.0*	*7.4*	*5.7*	*-8.0*	*3.6*	*1.2*	*-7.6*	*-8.8*	*-7.1*	*-8.1*	*-8.0*	*-7.9*	*-8.5*
Others	7.215	6.938	7.937	3.560	7.000	3.560	3.560	8.628	16.044	21.398	26.323	30.653	34.736	38.368
vol. growth	*-2.2*	*-0.3*	*1.0*	*-4.4*	*3.4*	*-3.4*	*0.0*	*5.1*	*7.4*	*5.4*	*4.9*	*4.3*	*4.1*	*3.6*
% growth	*-23.7*	*-3.8*	*14.4*	*-55.1*	*96.6*	*-49.1*	*0.0*	*142.4*	*85.9*	*33.4*	*23.0*	*16.5*	*13.3*	*10.5*
Total	**65.250**	**72.050**	**76.500**	**74.160**	**72.497**	**72.434**	**73.300**	**75.051**	**78.821**	**81.498**	**83.467**	**84.949**	**86.387**	**87.381**
vol. growth	*6.4*	*6.8*	*4.5*	*-2.3*	*-1.7*	*-0.1*	*0.9*	*1.8*	*3.8*	*2.7*	*2.0*	*1.5*	*1.4*	*1.0*
% growth	*10.8*	*10.4*	*6.2*	*-3.1*	*-2.2*	*-0.1*	*1.2*	*2.4*	*5.0*	*3.4*	*2.4*	*1.8*	*1.7*	*1.2*
		3.2	3.4	3.6	3.4	3.6	3.7	3.5	3.2	3.1	2.9	2.7	2.6	2.4

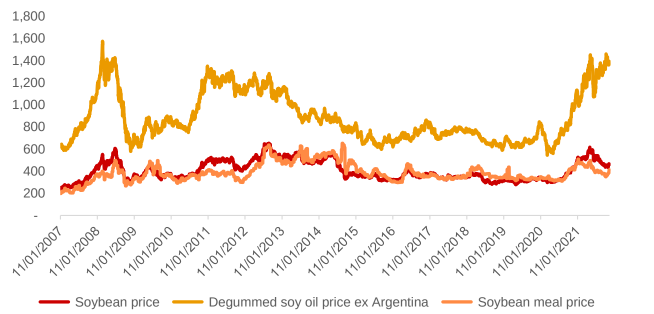
Source: Bloomberg Finance L.P, MEMR, GAPKI, Company, DBSVI estimate

Soybean oil and alternatives are also in tight supply mode

The soybean oil price is facing the impact of short-term shortages due to limited soybean to be crushed due to the thin soybean crushing margin. Soybean crushers like Wilmar are likely to keep the crushing volume low if the margin remains thin, as seen in 4Q21 data.

The price of soybean oil is one of the drivers of the currently stronger-than-expected palm oil benchmark price and going forward, it will be the key factor determining how long the palm oil price can stay at the current record-high level.

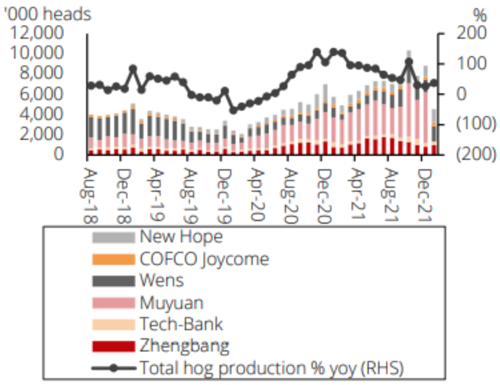
Soybean, soybean oil, and soymeal price trend



Source: Bloomberg Finance L.P, DBSVI

We forecast the crushing margin would improve on the back of recovering soymeal demand alongside hog prices in 2H22 and 2023, in line with our view on hog prices [here.](#) An improving crushing margin but a higher soybean crushing volume means more soybean oil supplies to the market, in our view. This explains our lower palm oil and soybean oil price assumption that does not imply and extrapolation of the current record-high level in 2H22 and beyond.

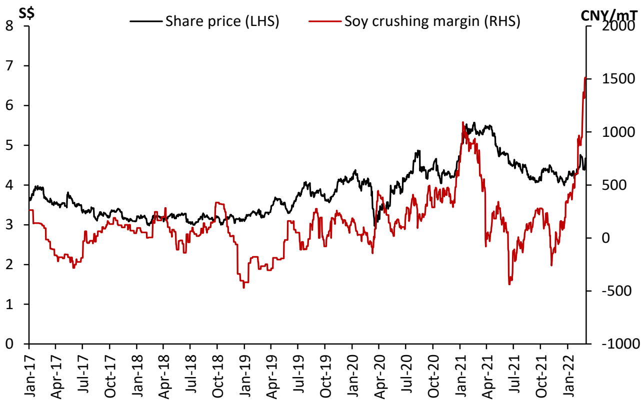
China monthly hog production volume



Source: Company Data, DBSVI

The improving crushing margin trend has been seen in late February as the soybean oil price climbs to a record-high level. We believe the margin could withstand the higher soybean prices, as soymeal prices will also improve alongside the hog price. The margin improvement will provide a margin buffer for food processing companies such as Wilmar in 2022.

China crushing margin trend



Source: Bloomberg Finance L.P, Company Data, DBSVI

Soybean supplies will be affected by the heavy rainfall in Jan-Feb 2022 in South America. Oil World estimated around 27m MT in crop losses during the period. We estimate soybean production in 2022 to be largely flat, and keep the overall stock and usage ratio tight. Our 2022 and 2023 soybean price estimates are US$360 per MT and US$361 per MT, respectively.

Soybean supply and demand summary

	Price of soybeans (US$/MT) (FOB)	Ending Stocks (k MT)	Global demand (k MT)	Global supply (k MT)	Stock/ usage ratio (%)	Crude oil price (US$/bbl)
2016	*360*	80,480	315,180	311,680	25.5%	42.5
2017	*352*	88,280	343,600	343,200	25.7%	51.6
2018	*330*	70,680	343,400	361,000	20.6%	56.7
2019	*319*	111,830	344,370	362,200	32.5%	60.4
2020	*348*	97,130	354,640	339,940	27.4%	65.0
2021	*486*	99,580	361,490	363,940	27.5%	65.0
2022F	*490*	99,580	391,137	359,437	25.5%	95.0
2023F	*486*	89,057	395,048	384,525	22.5%	75.0
2024F	*377*	86,411	398,998	396,352	21.7%	75.0
2025F	*384*	90,215	402,988	406,792	22.4%	65.0
2026F	*384*	89,310	409,033	408,129	21.8%	65.0
2027F	*384*	88,751	413,124	412,565	21.5%	65.0
2028F	*384*	88,893	417,255	417,396	21.3%	65.0
2029F	*384*	89,630	421,427	422,164	21.3%	65.0
2030F	*384*	86,735	429,856	426,962	20.2%	65.0

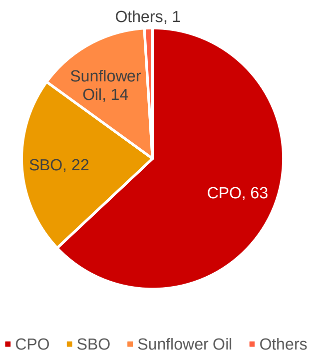
Source: Bloomberg Finance L.P, OilWorld, DBSVI

The Baltic Sea is the largest global sunflower oil supplier and the Ukraine-Russia war is threatening a sunflower oil supply disruption. The price of sunflower oil is at a premium to soybean oil and CPO. Hence, with the more expensive vegetable oil supplies being disrupted by the war, we think importers may have no cheaper alternative vegetable oils after palm oil. As such, switching behavior may not happen this time when the palm oil price climbs too close to that of soybean oil and other vegetable oils.

Major vegetable oil importers may be underprepared for such a steep price hike

India is facing a hard time in securing global vegetable oil supplies since, on top of the current palm oil shortages – the alternative vegetable oil – it is also facing supply disruption issues. As the largest vegetable oil consumer in the world, the current situation means India is likely to resume imports in the upcoming months due to its decision to wait for better vegetable oil prices in 2022.

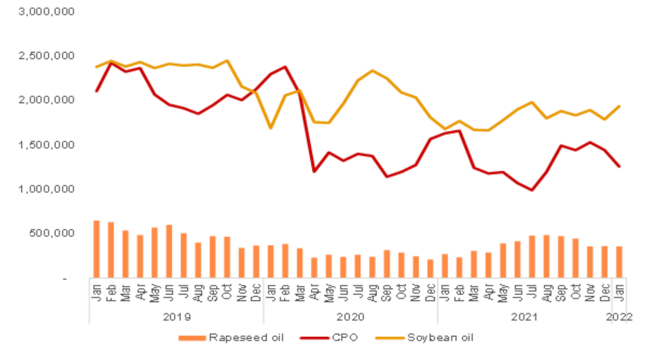
India vegetable oil import breakdown (%)



Source: Solvent Extractors' Association in India, Bloomberg Finance L.P., DBSVI

Beyond India, major vegetable oil consumers such as China and USA also do not significantly hold high vegetable oil stockpiles. Since last year, the vegetable oil price was already considered high, and consensus analysts in general think that the high vegetable oil price will only last for a while. With the view that price should normalise, we believe most buyers prefer to wait for better pricing in 2022, given that the logistics hiccup resulting from the pandemic is also supposed to be gradually dissipating.

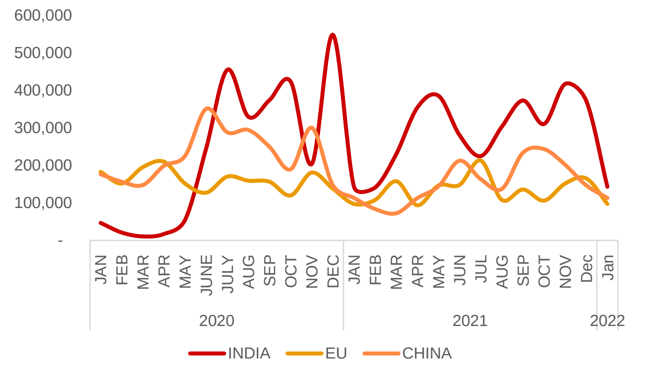
Major vegetable oil imports are holding low stockpiles at the beginning of 2022



Source: MPOC, DBSVI

This situation means that demand should return and the war-fuelled rush may maintain the price around the current record-high level. Even before the war, the overall vegetable supplies failed to trail the demand due to poor weather last year.

Low Malaysia CPO export to EU, China, and India since 2021



Source: MPOB, DBSVI

Key risks

Soybean oil price. If the price of soybean oil starts tumbling from its current level due to weaker-than-expected demand, especially from the hog/poultry sector due to a worse-than-expected switching trend, i.e., to cheaper alternative feeds such as paddy and other seeds, at the current high price. Another thing to watch for are the new planting prospects for the 2H22 and 2023 harvests, as a high price may lure a larger-than-expected soybean acreage across the world. CPO has never been trading at a premium to soybean oil. However, this may change if Indonesia decides to boost domestic biodiesel blending from the current B30 to B40.

Normalising Ukraine-Russia tensions. We are not keen on the war, but normalising tensions means leaner logistics for energy, especially for sunflower oil from the Black Sea, and the current record-high price may not hold for so long. Normalising crude oil prices, i.e., to US$90 per bbl or lower, could also lead to the retreat of the CPO price from its current record-high level. We believe that the current price contains a 15%-20% "war premium", which we do not account for in our forecast.

Crude oil price. If crude oil prices drop to below US$70 per bbl (Brent), Indonesia's biodiesel will be too pricey to pursue and lower biodiesel blending could potentially erase 11% of global CPO demand, meaning the CPO sector will again rely on the export market to sustain the price trend. The palm oil price may power through, maybe reaching the US$700-750 per MT level.

Indonesia's regulatory factor. If even the CPO price stays at the high level, the key risk of the Indonesian Government imposing tougher regulations, such as reintroducing higher DMO volume beyond 30% of exports, still remains. Another risk is if Indonesia starts to impose a DMO price cap similar to that of the coal DMO scheme to national electricity companies (PLN).

Supplies failed to recover in 2022. If CPO supplies continue to suffer the downtrend in 2022, palm oil prices could stay at the current record level this year. The potential for the expansion of palm oil supply is limited, unless the upcoming new maturing trees bear a stronger-than-expected CPO yield.

DBSVI recommendations are based on an Absolute Total Return* Rating system, defined as follows:
STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)
BUY (>15% total return over the next 12 months for small caps, >10% for large caps)
HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)
FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)
SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

**Share price appreciation + dividends*

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Sources for all charts and tables are DBSVI unless otherwise specified.

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