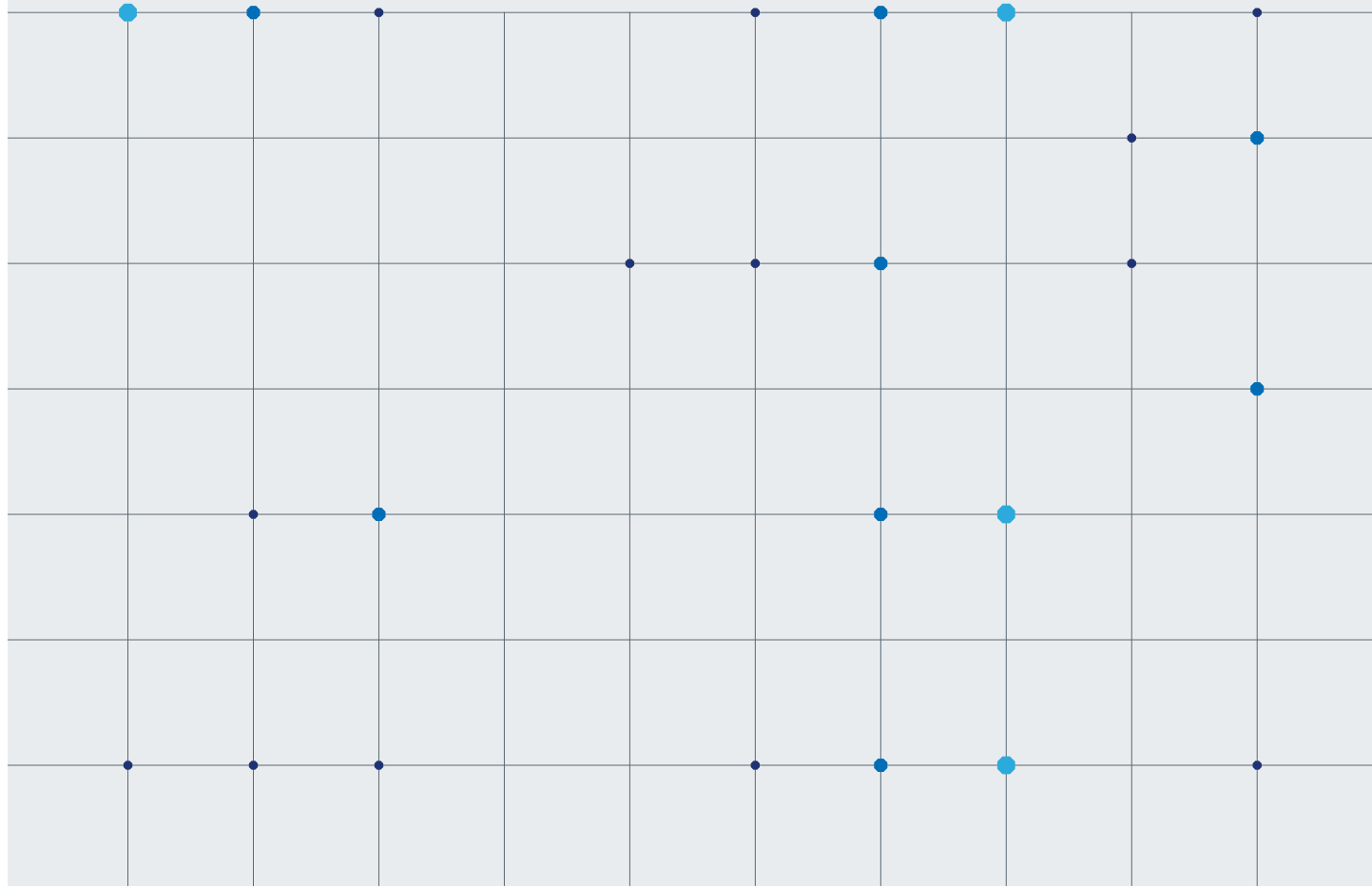


# Crude Palm Oil – Hedging And Storage

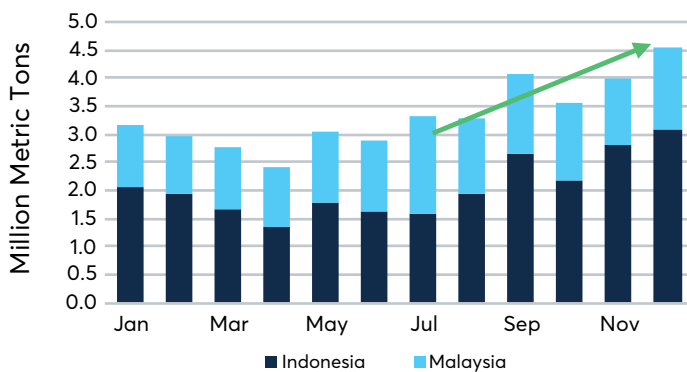


The volatile price movement of crude palm oil (CPO) during 2018 provides a good learning opportunity about the key features of using futures contracts to protect a producer's physical exports against adverse price movements.

## CPO Prices Typically Rise During the Second Half of the Calendar Year

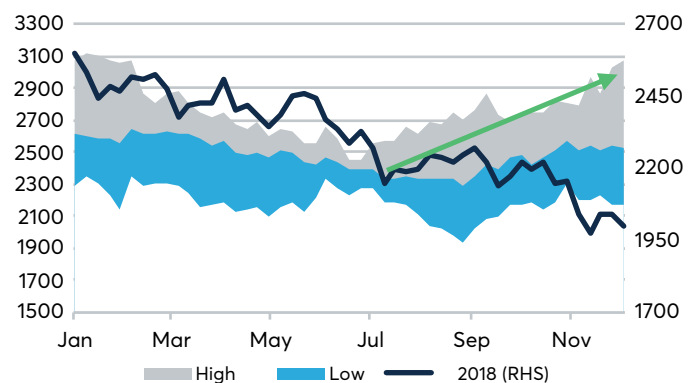
CPO production and exports tend to rise from August to November each year due to increased demand from India and China, the two largest CPO import countries. This period coincides with the Indian Diwali festival and the Chinese mid-Autumn festival, which are celebrated not only in India and China, but also in Greater China and South East Asia. Producers and traders hope to sell CPO at higher prices during these peak production months.

Seasonality of Export Volume (2014-17)



Source: UN Comtrade

Seasonality of Price (2014-17)



Source: Bloomberg. Pattern similar for past 15 years

## CPO Prices Fell During the Second Half of 2018

However, this historical price trend was broken in 2018 due to geopolitical activities that affected the demand for CPO. In January 2018, the European Union Parliament voted to phase out the use of palm oil as a biofuel in Europe.

## Hedging and Protection to Producers from Falling CPO prices

During the past several years, producers might have left their physical positions unhedged during this peak production period because CPO prices have tended to rise during the second half of the calendar year. However, these same producers might have been adversely affected by the fall in CPO prices during the second half of 2018, a period when they were accustomed to making money. Had they hedged their physical positions with a CPO futures contract, they might have introduced some measure of protection from the fall in CPO prices, and likely to have maintained their targeted profit margins.

---

## Downside Risks to Current CPO Prices

CPO prices have recovered slightly in the first quarter of 2019. Even though prices have been hovering around 10-year lows of \$520/MT, there is always potential for prices to go lower. CPO prices reached even lower levels looking back 20 years; they traded at \$360 in both 2005 and 2006 and briefly touched \$400 in 2008. Given this volatile potential for price movements, many producers have hedged their physical positions with futures contracts even when they believed that CPO prices could rise.

Crude Palm Oil Prices Hovering Near 10 Year Lows



Data Source: Bloomberg. MYR devalued against USD since 2014

## Fundamentals that Could Cause CPO prices to Rise

There are some potential factors for CPO prices going forward. New biodiesel mandates implemented in Indonesia and Malaysia could potentially buoy domestic demand for palm oil.

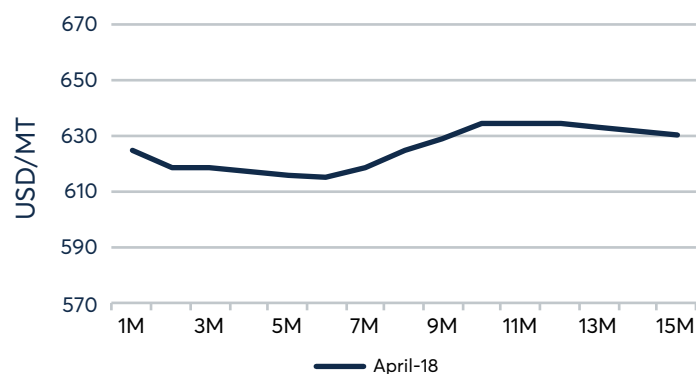
## Fundamentals That Could Cause CPO Prices to Fall

On the other hand, the market factors that caused CPO prices to decline in 2018 could resurface. The European Union Parliament has tightened the rules on the use of CPO for biofuel production, which will likely have a continuing negative impact on CPO demand.

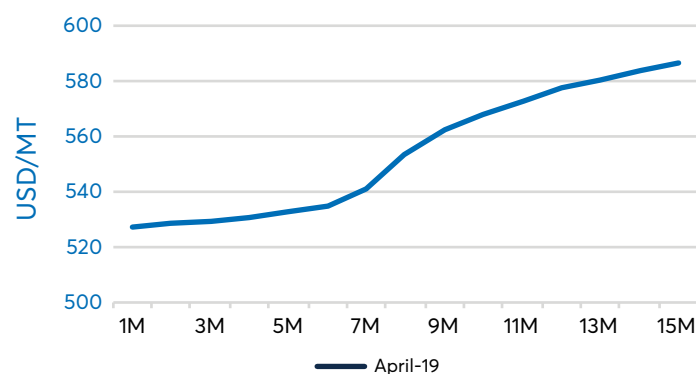
## Hedging is Typically About Locking in Forward Prices

The CPO forward price curve in 2018 is useful for explaining the typical objective of hedging your physical exposures with futures contracts. Assume that you have contracted to deliver a physical CPO cargo in seven months' time, at the prevailing cash price at that time.

The 2018 CPO forward price curve shows that the cash price (proxied by the 1-month forward or 1M price) was \$625, and the 7-month forward futures (7M) contract was priced at \$620. By taking a short position in the 7M futures contract, you would have locked in the price of your physical sales at \$620. Details on how the hedging mechanism works can be found on our CME Group Educational website. <https://www.cmegroup.com/education.html>

**2018 CPO Forward Curve - Relatively Flat**

Data Source: Bloomberg

**2019 CPO Forward Curve - Contango**

Data Source: Bloomberg

## Conditions Sometimes Favorable for Storage or Carry Strategies

As CPO production and sales tend to peak between September and November, the CPO forward curve is typically more contango in shape (i.e. distant prices greater than current prices), such as the one discovered so far in 2019. Some CPO producers might already be using the strong contango to delay their physical sales and holding out for higher potential prices.

Storage plays are business decisions which a producer could carry out without involving futures contracts, but if their physical CPO positions are unhedged, they are exposed to potential downside price movements. A CPO futures contract might provide some price protection when a producer engages in a storage play.

Assume that it is February, and CPO deferred month prices look like the 2019 CPO forward curve above. A producer has CPO available to sell and the March contract month is priced at \$530/MT and the December contract month (10M) is priced at \$565/MT. This means that, in theory, a producer can take a short futures position on the December 2019 contract, and effectively lock in his CPO sales price at \$565/MT (\$35/MT higher than the price prevailing in the March contract). Provided the cost to store CPO from March to December is lower than \$35/MT, the producer may profit by delaying the time he plans to market product.

As a producer, you already have a natural cash position in your physical inventory, so you can hedge your physical storage play by taking a short position in the far-dated contract month. This enables you to protect the effective price of your physical sales should cash prices fall. And you could potentially participate in the price upside as cash prices rise, by rolling your futures positions to the next forward contract months, until the time you make delivery.

## CPO Futures Help Producers to Manage Price Risks in a Cost-Effective Manner

There are various palm oil futures and swaps instruments in the market. The advantages of CPO hedging using the CME-cleared swap (produce code: CPC) or the futures (produce code: CPO) contract are:

- You avoid physical delivery because the contract is settled in cash.
- You can help minimize counterparty risk as your trades are submitted through CME for clearing.
- If you trade palm oil with international counterparties, you may avoid unnecessary foreign exchange costs as the CME contracts are executed in U.S. dollars.
- You may have margin offset benefits if you are trading other related products listed by CME Group.



[cmegroup.com](http://cmegroup.com)

Helping the World Advance: CME Group is comprised of four designated contract markets (DCMs), the Chicago Mercantile Exchange Inc ("CME"), the Chicago Board of Trade, Inc. ("CBOT"), the New York Mercantile Exchange, Inc. ("NYMEX"), and the Commodity Exchange, Inc. ("COMEX"). The Clearing Division of CME is a derivatives clearing organization ("DCO") for CME Group's DCMs.

Exchange traded derivatives and cleared over-the-counter ("OTC") derivatives are not suitable for all investors and involve the risk of loss. Exchange traded and OTC derivatives are leveraged instruments and because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money initially deposited. This communication does not (within the meaning of any applicable legislation) constitute a Prospectus or a public offering of securities; nor is it a recommendation to buy, sell or retain any specific investment or service.

The content in this communication has been compiled by CME Group for general purposes only and is not intended to provide, and should not be construed as advice. Although every attempt has been made to ensure the accuracy of the information within this communication as of the date of publication, CME Group assumes no responsibility for any errors or omissions and will not update it. Additionally, all examples and information in this communication are used for explanation purposes only and should not be considered investment advice or the results of actual market experience. Any information denoting past or historical performance is not indicative of future performance and no reliance shall be placed on such information. All matters pertaining to rules and specifications herein are made subject to and superseded by official CME, CBOT, NYMEX and COMEX rulebooks. Current rules should be consulted in all cases including matters relevant to contract specifications. CME Group does not represent that any material or information contained in this website is appropriate for use or permitted in any jurisdiction or country where such use or distribution would be contrary to any applicable law or regulation.

In Hong Kong, CME Group is authorised by the Hong Kong Securities and Futures Commission (the "SFC") to provide Automated Trading Services ("ATS") to Hong Kong investors via its GLOBEX system, and its CME Clearing System under Part III of the Securities and Futures Ordinance (the "SFO").

In Singapore, CME Inc., CBOT and NYMEX are regulated as a recognized market operator and CME Inc. is regulated as a recognized clearing house under the Securities and Futures Act (Chapter 289) ("SFA"). Save as aforesaid, none of the CME Group entities are licensed to carry on regulated activities under the SFA or to provide financial advisory services under the Financial Advisers Act (Chapter 110) in Singapore.

None of CME Group entities are registered or licensed to provide, nor does it purport to provide, financial services of any kind in some jurisdictions, including, but not limited to, India, Korea, Malaysia, New Zealand, People's Republic of China, Philippines, Taiwan, Thailand, and Vietnam and in any jurisdiction where CME Group is not authorized to do business or where such distribution would be contrary to the local laws and regulations.

In Hong Kong, this communication is intended to be distributed to professional investors only, as defined under the Securities and Futures Ordinance. The contents of this communication have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the information contained herein. If you are in any doubt about any of the contents of this communication, you should obtain independent professional advice. CME is not licensed to carry on business in dealing or advising on futures contracts under the Securities and Futures Ordinance in Hong Kong.

In Singapore, this communication and its contents have not been reviewed or approved by any regulatory authority in Singapore. The information within this communication has been compiled by CME Group for general purposes only and is not intended to provide, and should not be construed as, advice. It does not take into account your objectives, financial situation or needs, you should obtain appropriate professional advice before acting on or relying on the information set out in this communication. The information within this communication should not be considered as an offer, invitation or solicitation to buy or sell any futures, options contracts or any other financial products or services. CME Group assumes no responsibility for any errors or omissions. Additionally, all examples in this communication are hypothetical situations, used for explanation purposes only, and should not be considered investment advice or the results of actual market experience. This communication is for distribution in Singapore solely to persons holding a capital markets services licence for trading in futures contracts or exempt from such requirements.

In these jurisdictions, this communication has not been reviewed or approved by any regulatory authority and access shall be at the liability of the user. Any trades undertaken in the aforesaid jurisdictions will be at the sole risk of the relevant investor and should always be made in compliance with the local laws and regulations applicable in such jurisdictions.

CME Group, the Globe Logo, CME, Globex, E-Mini, CME Direct, CME DataMine and Chicago Mercantile Exchange are trademarks of Chicago Mercantile Exchange Inc. CBOT and the Chicago Board of Trade are trademarks of the Board of Trade of the City of Chicago, Inc. NYMEX and ClearPort are trademarks of New York Mercantile Exchange, Inc. COMEX is a trademark of Commodity Exchange, Inc.

Copyright © 2019 CME Group Inc. All rights reserved.

Mailing Address: 20 South Wacker Drive, Chicago, Illinois 60606

PM2741A/0519