

Canola

The IntercontinentalExchange® (ICE®) became the center of global trading in canola with its acquisition of the Winnipeg Commodity Exchange at the end of 2007.

Canola seed (formerly rapeseed) futures began trading on the Winnipeg Commodity Exchange, now known as ICE Futures Canada®, in 1963. Options on canola futures were introduced in 1991. Futures and options on futures are used by the domestic and global oilseeds industries to price and hedge transactions. Canola competes with palm oil, soybean oil, sunseed oil and other vegetable oils in the traditional foodstuffs market and in the emerging biodiesel market. As is the case with the ICE Futures U.S.® Sugar No. 11® contract, canola traders monitor food and energy markets simultaneously. Because this commodity is priced in Canadian dollars (CAD) per metric ton, canola traders may be exposed to a currency trade in addition to food and energy trades.

A BRIEF HISTORY OF CANOLA

The name “canola” is actually a contraction of Canadian Oil, Low Acid. It is a derivation from rapeseed, an oilseed whose name in turn derives from the Latin word “rapum” for turnip. Rapeseed oil was used as an industrial lubricant in World War II, but was considered unsafe for human or livestock consumption due to its erucic acid and glucosinolate content. The first “double-low,” or reduced erucic acid and glucosinolate plant was developed in 1974 by Dr. Baldur Stefansson at the University of Manitoba through plant breeding. Canola oil was added to the U.S. Food and Drug Administration’s Generally Recognized As Safe (GRAS) list in 1985. Today canola oil is acknowledged as a premium vegetable oil for its low saturated fat content. This same feature also makes it a leading ingredient in biodiesel production in Europe, since canola oil has the lowest cloud point of any competing vegetable oil.

CANOLA AND INTERNATIONAL TRADE

Canola is widely grown, with global production at around 57.5 million metric tons. The European Union has the largest production, followed by China and Canada. The E.U. and China are also among the world’s leading importers, with Japan, Mexico, Pakistan and the U.S.A. also importing canola. Canada is the world’s largest exporter of canola, with 70% of the market. This is why ICE Futures Canada’s canola futures correlate to world values. The canola seed is approximately 40% oil by content. The residual canola meal is used as a high-protein additive in livestock feed mixes.

CURRENCY CONNECTIONS AND INTERMARKET ARBITRAGE

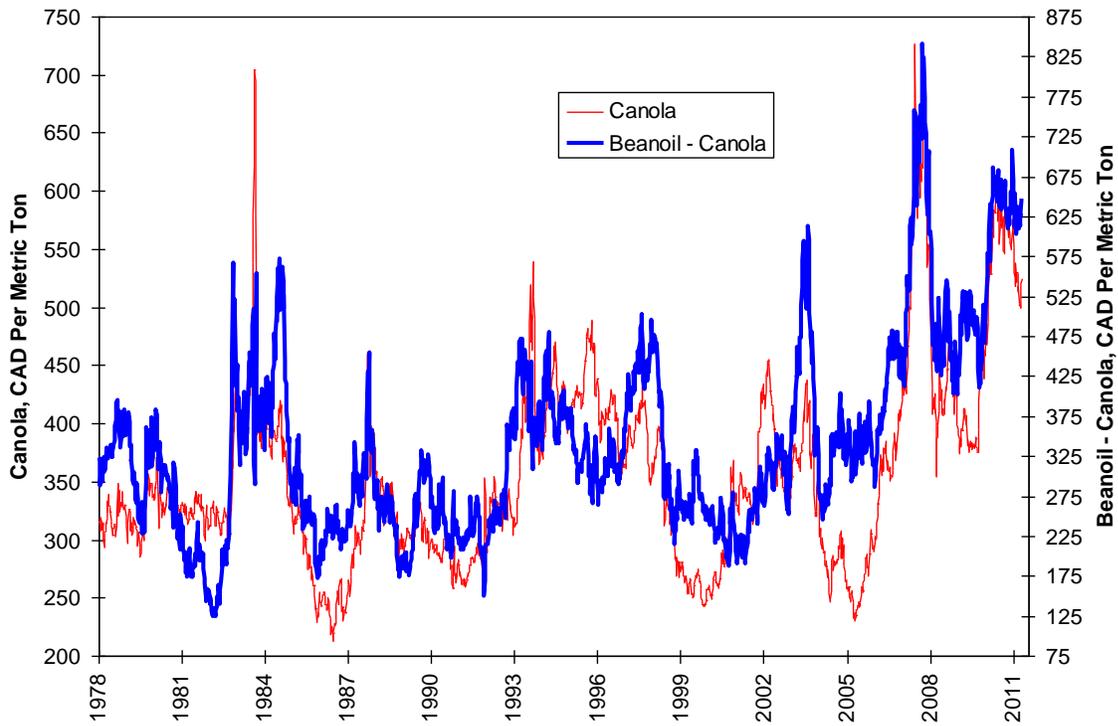
Because canola competes with vegetable oils not priced in CAD, canola industry participants and traders regularly convert prices from CAD into other currencies, which is a straightforward procedure. The spread between canola and soybean oil is easily calculated using the following formula:

1. Multiply the soybean oil price in cents per pound by 22.0462 to get USD per metric ton;
2. Multiply the result by the exchange rate expressed in CAD per USD to get CAD per metric ton; and
3. Subtract the price of canola in CAD per metric ton to get the spread in CAD per metric ton.

For the canola–soybean spread:

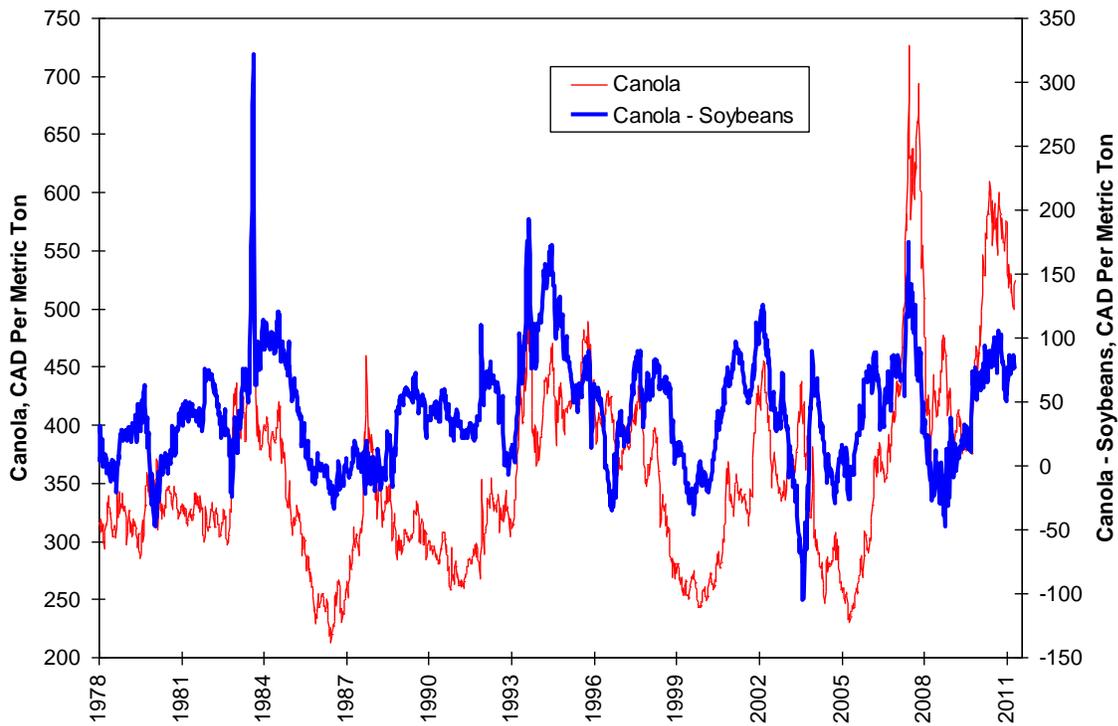
1. Multiply the price of soybeans in USD cents per bushel by .36744 to get the price in USD per metric ton;
2. Multiply the result by the exchange rate expressed in CAD per USD to get CAD per metric ton; and
3. Subtract the price of soybeans in CAD per metric ton from canola to get the spread in CAD per metric ton.

The Beanoil - Canola Spread



Source: CRB-Infotech CD-ROM

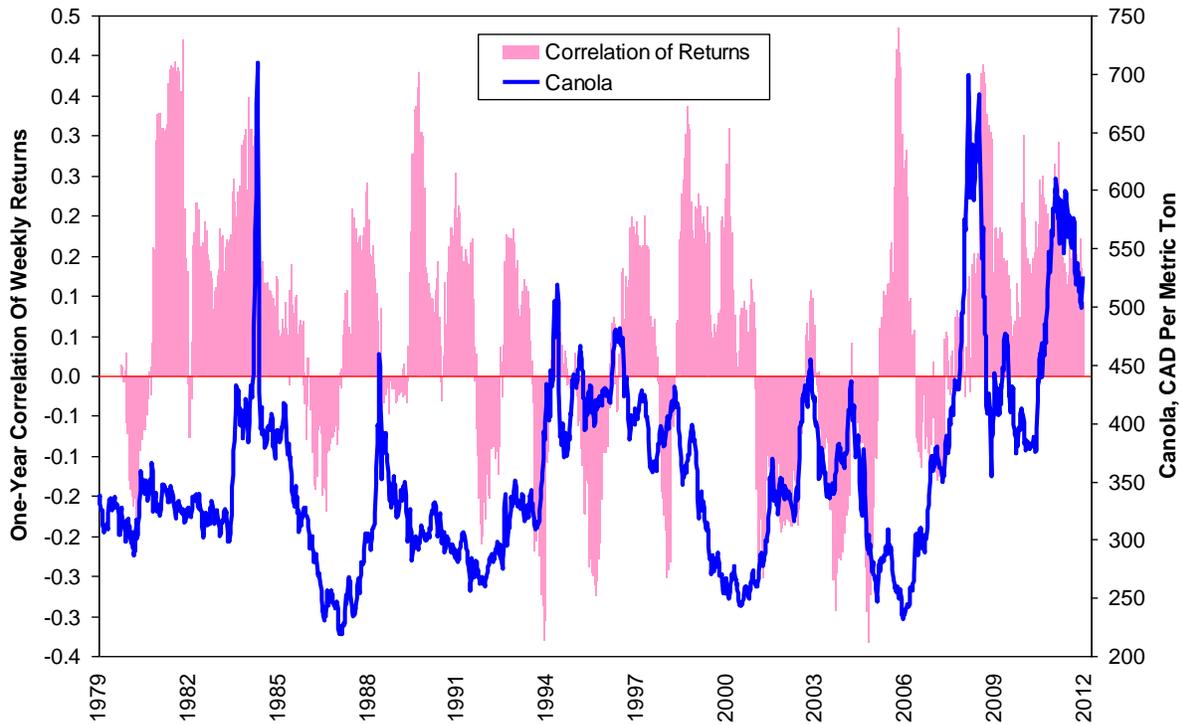
The Canola - Soybean Spread



Source: CRB-Infotech CD-ROM

The energy side is more difficult to illustrate because of the highly localized nature of diesel fuel markets located near canola-supplied biodiesel refineries. However, the one-year rolling correlation of weekly returns between canola and heating oil (which, like diesel fuel, is a middle distillate) is telling: Since early 2005, the correlation of returns has turned highly positive for most of the period. High and rising diesel fuel prices make biodiesel more attractive, regardless of the source. If palm oil or soybean oil prices rise, canola becomes more valuable in turn.

Correlation Between Canola And Heating Oil Positive

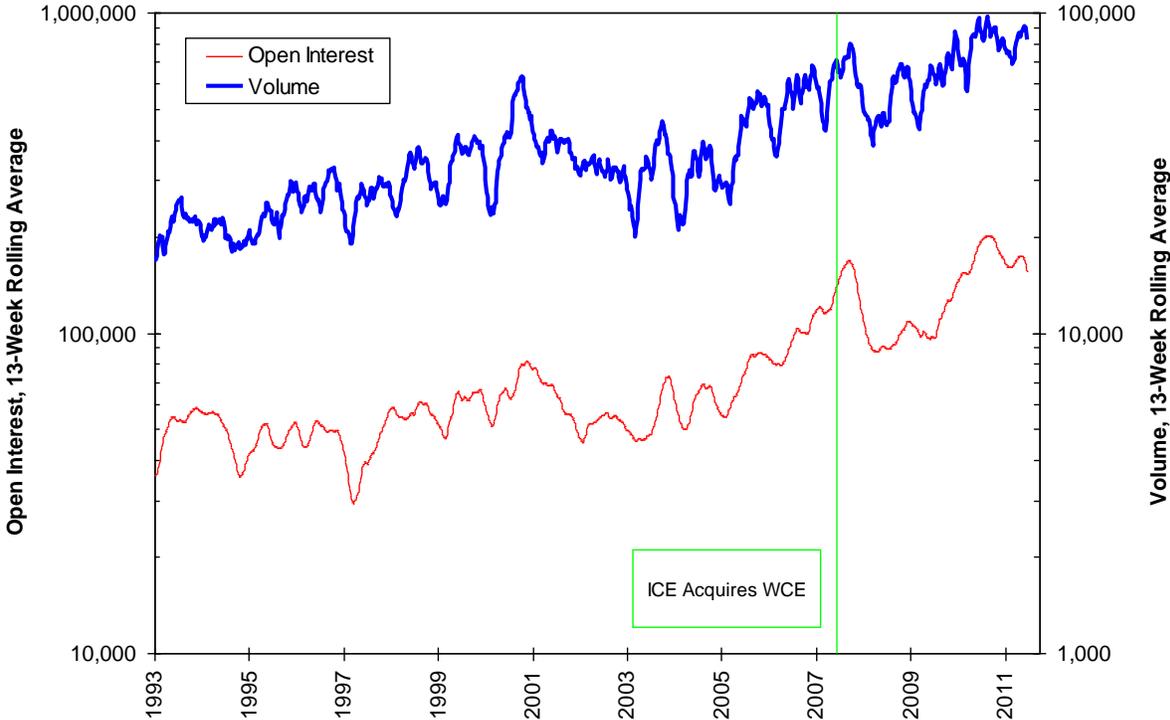


Source: CRB-Infotech CD-ROM

CANOLA TRADING AT ICE FUTURES CANADA

The price and currency risks for canola, along with its active spread against other oilseeds used in food and biodiesel, has made the canola futures contract attractive to hedgers and speculators. The volume history can be seen below:

Long-Term Success Of Canola Contract



Source: CRB-Infotech CD-ROM

ICE FUTURES CANADA CANOLA CONTRACT

The ICE Futures Canada canola futures contract is physically delivered. The key specifications are:

ICE Futures Canada Canola Futures Specifications

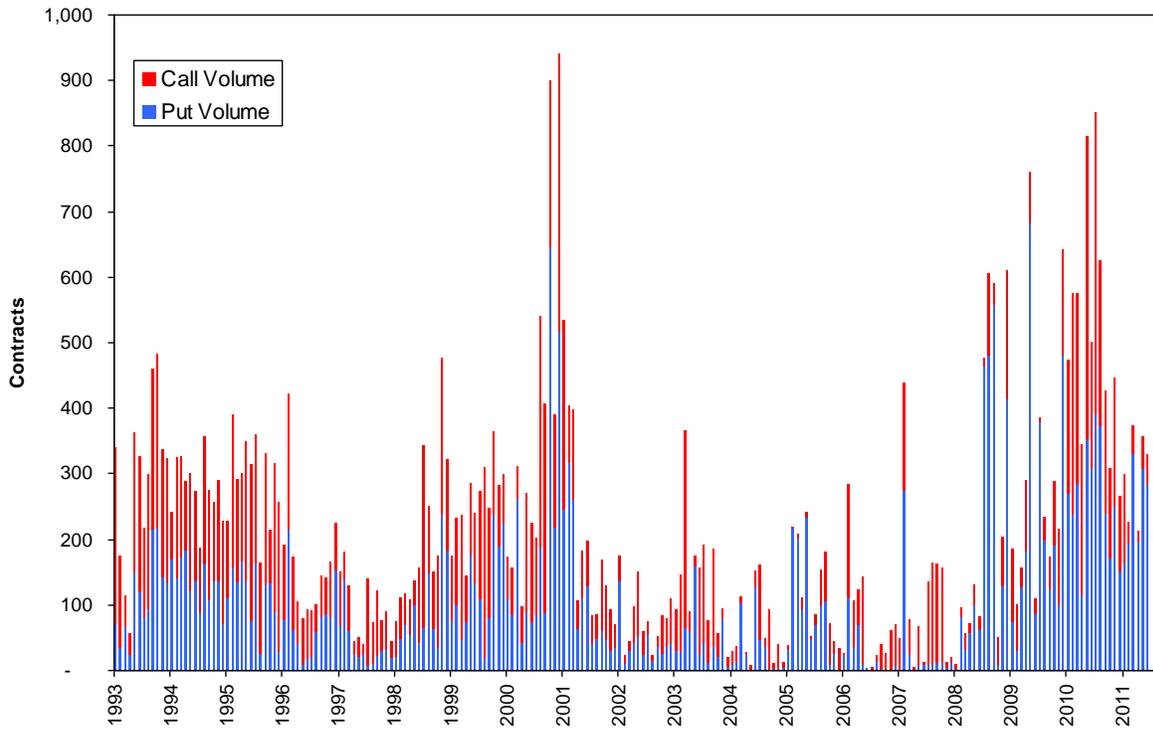
Hours	0800 to 1415 EST
Pricing Basis	Free on board value at points in the Par Region
Symbol	RS; some quote vendors may use different symbol
Size	20 metric tons
Quotation	CAD per metric ton
Contract Cycle	Jan-Mar-May-Jul-Nov
Minimum Fluctuation ("tick")	CAD 0.10 = CAD 2
Trade Match Algorithm	First-in-first-out (FIFO)
Deliverable Specifications	Deliverable grades shall be based on Canadian Grain Commission primary elevator grade standards Non-commercially clean Canadian canola with maximum dockage of 8%; all other specifications to meet No. 1 Canada canola at par; or Deliverable at CAD 5 / metric ton premium: commercially clean No. 1 Canada canola; or Deliverable at CAD 8 / metric ton discount: commercially clean No. 1 Canada canola; or Deliverable at CAD 13 / metric ton discount: non-commercially clean Canada canola, with maximum dockage of 8%; all other specifications to meet No. 2 Canada canola Varieties derived from genetically modified organisms (GMO) are deliverable
Delivery Regions	Par: Par area in Saskatchewan Central East: Non-par locations in Saskatchewan at CAD 0 / metric ton discount Central West: Non-par locations in Saskatchewan at CAD 2 / metric ton premium Eastern: Non-par locations in Manitoba at CAD 2 / metric ton discount Western: Non-par locations in Alberta (excluding Peace River district of Alberta) at CAD 6 / metric ton premium Peace River: Non-par locations in Alberta and British Columbia known as the Peace River district at CAD 6 / metric ton premium
Delivery Region Map	https://www.theice.com/publicdocs/futures_canada_elevators_canola_map.pdf
Daily Price Limit	CAD 30/metric ton above or below previous settlement. See ICE Futures Canada Rule 15 for details on expanded price limits
Reasonability Limit	60 ticks
Speculative position limit	2,000 contracts (In spot month only. See ICE Futures Canada Rules for details)
First/Final Notice Day	One trading day prior to the first delivery day / first trading day after the last trading day of the delivery contract
Last Trading Day	Trading day preceding the fifteenth calendar day of the delivery month Last notice day is twelve business days from end of spot month

A complete list of futures specifications is available at:

<https://www.theice.com/productguide/ProductDetails.shtml?specId=251>

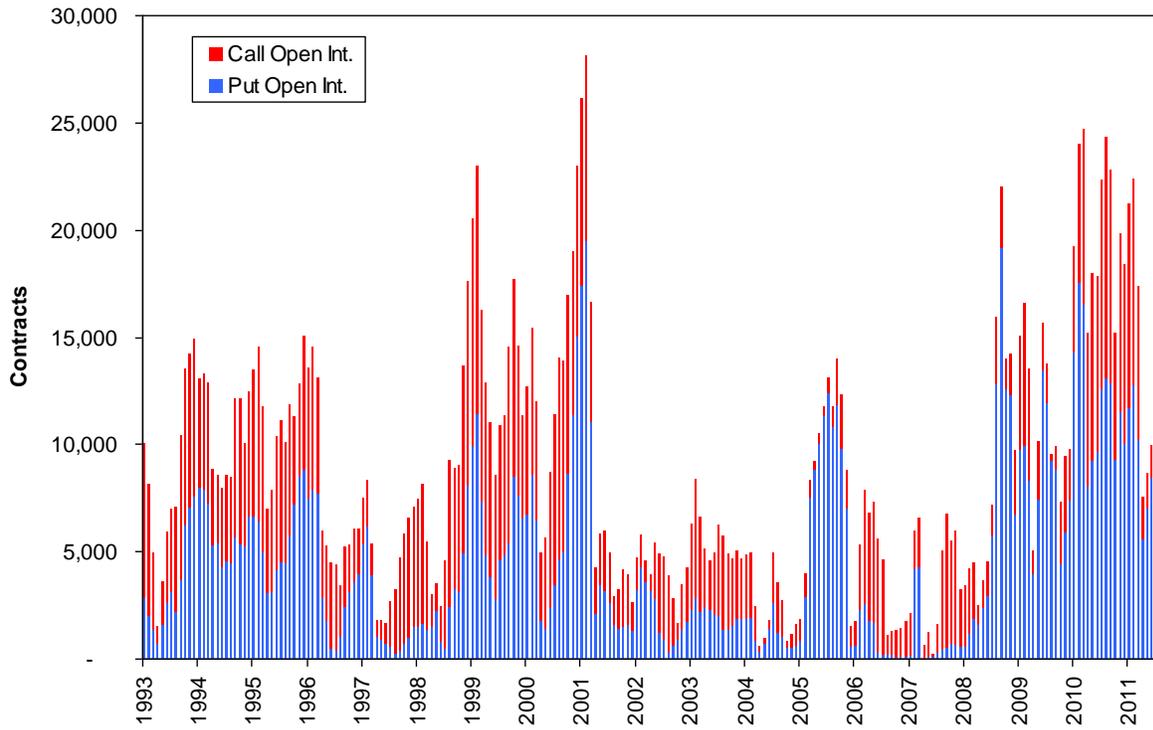
Canola options volume and open interest rose between 1999 and 2001, when canola futures prices first trended downward towards historical lows and then trended upward. Options volume and open interest declined after 2001 as volatility and, as a result, option prices, increased. Both volume and open interest have increased since late 2008 as part of a general rise in global grain and oilseed prices and volatilities.

Average Daily Trading Volume By Month: Canola Options



Source: ICE Futures Canada

Average Monthly Open Interest: Canola Options



Source: ICE Futures Canada

TRADING ICE FUTURES CANADA CANOLA FUTURES AND OPTIONS

Futures markets exist for the purposes of price discovery and risk transfer. Price discovery requires buyers and sellers to meet in a competitive marketplace; the prices resulting from each transaction signals to other traders what a given commodity might be worth.

Market participants who are approved by a clearing member or futures commission merchant may participate in the price discovery process. A market participant who is not in the canola business may be classified as a non-commercial trader. A market participant active in the business may be classified as a hedger. For a non-commercial participant, trading is simple and straightforward: If you believe the price of canola will rise, you buy (go long) a futures contract; if you believe the price of canola will fall, you sell (go short) a futures contract.

These same market views can be expressed in the options market as well. If you believe prices will rise, you can buy a call option, sell a put option or engage in a large number of “spread trades” tailored to your specific price view and risk acceptance. If you believe prices will fall, you can buy a put option, sell a call option or engage in a different set of spread trades. A “long call (put) option” provides the right, but not the obligation, to go long (short) the underlying future at the strike price at or before expiration. A “short call (put) option” is the obligation to deliver (take delivery) of the underlying future at or before expiration if that option is exercised. ICE canola options are also useful to hedgers. Producers can set a floor beneath a selling price with long put options, and buyers can establish a ceiling over costs with long call options, among other strategies.

As the designated clearinghouse, ICE Clear Canada serves as the financial counterparty to every futures contract traded on ICE Futures Canada. The clearinghouse matches long and short positions anonymously and guarantees financial performance.

What do the financial flows look like in a futures trade? Let’s say a five-contract futures position is initiated at C\$530 per metric ton and the market rises to C\$565 per metric ton on the following trading day.

- For the long position, the gain would be:
 $5 \text{ contracts} \times [565 - 530] / \text{ton} \times 20 \text{ tons per contract}$
 $= \text{C}\$3,500$
- For the short position, the loss would be equal and opposite:
 $5 \text{ contracts} \times [530 - 565] / \text{ton} \times 20 \text{ tons per contract}$
 $= -\text{C}\$3,500$

If we reversed the price path, we would reverse the gains and losses. Let’s change the starting price to C\$545 per metric ton and have the market decline to C\$520 per metric ton the next day.

- For the long position, the loss would be:
 $5 \text{ contracts} \times [520 - 545] / \text{ton} \times 20 \text{ tons per contract}$
 $= -\text{C}\$2,500$
- For the short position, the gain would be equal and opposite:
 $5 \text{ contracts} \times [545 - 520] / \text{ton} \times 20 \text{ tons per contract}$
 $= \text{C}\$2,500$

Options traders see the same directional profit and loss profiles relative to price, but the actual profit and loss is subject to a range of additional factors, including market volatility, time to expiration, interest rates and the relationship between the current futures price and the option’s strike price.

RISK TRANSFER

Another use for the futures market is risk transfer. An originating seller, grower or marketer of canola, a holder of canola inventories or any party at risk to the price of canola declining can seek protection in the futures markets. These participants are long the market and can offset risk by going short a futures contract. Canola buyers, all of whom are at risk to the price of canola increasing, are short the market and can offset risk by going long a futures contract.

The mechanics and financial flows are identical to those outlined above. A canola grower who is at risk if prices fall may acquire a financial asset, in the form of the short futures position, which will rise in value as the market declines. The opposite is true for a canola buyer who is at risk if prices rise; in that situation a long futures position would rise in value as the market rises. While financial flows should offset the economic gains and losses of the physical canola position, there are two important things to remember: First, even though futures prices theoretically

converge to cash prices at expiration, the convergence process is subject to “basis risk” or differences resulting from changes in hedging demand, location of the canola and grade differentials.

Second, while the physical product is actual, for example, an elevator full of canola is real, the financial gains are not realized until the canola is sold. If the inventory is hedged with a short futures position and the market rises, the beneficial owner will have to keep posting additional funds into the margin account until the futures are liquidated.

Options are also valuable to hedgers. While the canola grower may wish to have downside protection or a price floor, that same grower probably wants to participate in any future price increases. For example, in late June, if November futures were priced at C\$450, a grower concerned about a decline in the value of canola between now and harvest could buy a put option, which is the right, but not the obligation, to receive a short futures position. If the grower were to buy a November C\$440 put for C\$20 per ton or a total of C\$400 per 20 ton contract, he would be guaranteed the right to sell the November future for an effective price of C\$420 per metric ton (the C\$440 strike price less the premium paid of C\$20). This right would give the grower protection if canola prices had fallen before the expiry of the November option and would also preserve the grower’s ability to profit should the price of canola move higher over the period.

The buyer who would like to cap the price of canola, without being subjected to a margin call if the price continues to rise, can do an opposite trade and buy a November C\$470 call option, which is the right, but not the obligation, to receive a long position in a November future at C\$470. For example, if the price was listed at C\$17 per ton, or C\$340 per contract, a purchased call would give the canola buyer the right to buy the November future at an effective price of C\$487 per metric ton (at a strike price of C\$470 cents plus a premium paid of C\$17). This would provide protection against an unfavorable rise in the price of canola while preserving the ability to benefit if prices declined.

It should be noted that the risk profile for options sellers is dramatically different than that of options buyers. For buyers, the risk of an option is limited to the premium or purchase price paid to buy the option. For sellers of call options, the theoretical risk is unlimited. For sellers of put options, the theoretical risk is limited to the strike price of the option less the premium received. However, in practice, an options seller may reduce risk by hedging a short options position in the underlying futures market, or may buy back the same option to limit a loss.

ABOUT INTERCONTINENTAL EXCHANGE

IntercontinentalExchange (NYSE: ICE) operates leading regulated exchanges, trading platforms and clearing houses serving the global markets for agricultural, credit, currency, emissions, energy and equity index markets. ICE Futures Europe hosts trade in half of the world’s crude and refined oil futures. ICE Futures U.S. and ICE Futures Canada list agricultural, currency and Russell Index markets. ICE offers trade execution and processing for the credit derivatives markets through Creditex and ICE Link, respectively, and CDS clearing through ICE Trust and ICE Clear Europe. A component of the Russell 1000[®] and S&P 500 indexes, ICE serves customers in more than 50 countries and is headquartered in Atlanta, with offices in New York, London, Chicago, Winnipeg, Calgary, Houston and Singapore.

LEADING ELECTRONIC TRADING PLATFORM

ICE’s robust electronic trading platforms are amongst the world’s most flexible, efficient and secure commodities trading systems. They were the first platforms to offer electronic access to both futures and over-the-counter (OTC) energy markets. ICE offers the most rapid trade execution of any futures platform, with an industry-leading three millisecond transaction time. Accessible via direct connections, telecom hubs, the Internet and numerous front-end providers, ICE’s platform is scalable and flexible, which means new products and functionality can be added quickly and without requiring users to upgrade their own systems.

INTEGRATED ACCESS TO GLOBAL DERIVATIVES MARKETS

ICE’s integrated marketplace offers both futures and OTC markets, including cleared OTC and bilateral products on a widely-distributed electronic platform that flexibly serves participants’ needs and changing market conditions so that risk can be managed confidently in real-time.

TRANSPARENCY AND REGULATION

Price transparency is vital to efficient and equitable markets. ICE offers unprecedented price transparency and ensures that full depth of market is shown to all participants and observers. Trades are executed on a first-in/first-out basis, ensuring fair execution priority. ICE also displays a live ticker of all deal terms and maintains an electronic file of all transactions conducted in its markets. ICE’s markets are subject to applicable regulation in the country of domicile, as well as subject to regulatory requirements of the jurisdictions where ICE operates.

ICE FUTURES CANADA REGULATION

ICE Futures Canada, Inc. is registered as a commodity futures exchange and a self-regulatory organization under The Commodity Futures Act, 1996, S.M. c73. The Manitoba Securities Commission (MSC) is the primary regulator. ICE Futures Canada has been granted No-Action relief by staff of the U.S. Commodities Futures Trading Commission (CFTC), permitting it to make its electronic trading system available to U.S.-based participants. A full list of jurisdictions for ICE Futures Canada may be found on the ICE website at:

https://www.theice.com/publicdocs/futures_canada/Futures_Canada_Jurisdictions.pdf

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GETTING INVOLVED

A list of ICE Education programs is available at:

<https://www.theice.com/education>.

An overview of ICE capabilities is available at: www.nxtbook.com/nxtbooks/ice/icecapbrochure

The ICE website at: <http://www.theice.com> is a good place to start. The product page for canola is: <https://www.theice.com/productguide/ProductDetails.shtml?specId=250>

The link:

https://www.theice.com/futures_canada.jhtml provides you with the technical details on exchange rules, margins and fees and delivery and expirations.

To contact ICE Futures Canada, email: ICECanada@theice.com