Basis Payment Contract

The CWB offers producers the opportunity to fix a basis on their milling wheat, feed barley or selected barley against the related futures contract. The CWB basis is referred to as "pooled" because it is an average basis calculated from a forecast of the basis on all CWB pooled sales for the crop year. Therefore, the CWB basis offered to producers typically varies substantially, in either direction, from daily cash basis levels offered to end users.

The CWB PRO for the reference grade is the starting point for the basis calculation. The CWB deducts the forecasted average futures value for the crop year and a discount for risk, time value of money and administration costs to determine the average projected pool basis. The basis is recalculated each time the PRO is released and may be recalculated between PROs if market conditions warrant.

The CWB uses a flat price structure across all futures months to calculate the basis, which means that the futures price added to the related basis will be equal regardless whether the futures contract month is for nearby or deferred delivery. The CWB basis is quoted in store St. Lawrence or Vancouver. Freight must be deducted to determine the country basis at the producer's delivery location.

As a comparison with canola, the merchandiser offering the cash basis adjusts the basis level higher or lower, to attract or discourage deliveries. The basis is a spot or cash value directly associated with a particular delivery point and specific futures contract month, adjusted for quality, various elevator handling charges and margin. This spot basis includes a freight differential based on the physical delivery location versus the futures delivery region.

CWB vs. non-Board basis

CWB	Non-Board
Based on a forecast of the average basis in the crop year	Based on a spot or cash value directly associated with the futures contract
Quoted at export position	Quoted basis country delivery location
Flat priced across all futures months	Adjusted higher or lower to encourage or discourage delivery
Relatively stable	May be extremely volatile

BPC components

There are three components that determine the price of a BPC: the futures value, the basis value and the late sign-up adjustment factor. They are posted daily on the CWB Web site under "Farmers-Producer Payment Options". Producers may lock in either the futures value or the basis component on sign-up and price the other at a later date. The late sign-up adjustment factor reflects the difference between the average futures and foreign exchange on sales and current futures. It is always applied at contract sign-up.

Futures value

Futures settlement prices from the Winnipeg, Kansas, Chicago, and Minneapolis exchanges are used, depending on grain and class. U.S. prices are quoted in Canadian dollars per tonne, calculated using the forward Bank of Canada foreign exchange rate.

Basis

There are three components used to calculate the basis: the monthly CWB PRO, the CWB's forecasted futures, and a discount for the time value of money, risk and administration cost:

Basis = (CWB PRO - CWB forecasted futures) - discount

PRO

Forecast of the average export sales price for the crop year.

Forecasted futures

The anticipated average futures value at which pooled sales are made during the crop year.

Discount

The discount is the cost to the producer to sign a BPC and is comprised of three parts:

1. Time value of money – represents the cost in lost interest of financing earlier payments to producers. However, producers recover this discount on a pro-rated basis according to the actual month of delivery. (See incremental payment page 33).
2. Risk – this discount is taken to offset the risk the CWB is assuming by offering a basis that may not reflect the actual average sales basis at the end of the crop year.
3. Administration – covers the costs of administering the program.

The CWB pays producers an incremental payment for deliveries later in the crop year. It is a refund of the time value of money portion of the discount that was charged to the producer but not incurred by the CWB.

The basis is determined using the December futures month. The basis for March, May and July months are calculated from the December on a flat price basis. That is, the sum of the futures price and the basis is the same for all futures months. Therefore day-to-day variations caused by futures market activity will be reflected in the deferred months.

The basis is calculated on the monthly PRO release date and remains constant between PRO dates. If the markets become volatile between PRO releases, the basis will be adjusted to reflect the additional risk to the CWB of executing a balanced hedge for the program and a revised PRO will be issued.

Late sign-up adjustment factor

The late sign-up adjustment factor is the cost of committing tonnage to the BPC and FPC programs after August 1, when the CWB starts recording sales and begins buying futures as part of its risk management strategy. The late sign-up adjustment factor offsets the gain or loss on long positions that would otherwise be absorbed by the BPC and FPC hedging program by passing it back to program participants. It is designed to provide later sign-up into the fall once production is known, while ensuring the integrity of the pool accounts. It is calculated as follows:

Late sign-up adjustment factor = (average futures on CWB sales* to date – current futures*) x percentage of pool sold

* Includes adjustment for foreign exchange.

The CWB hedges the BPC and FPC program throughout the crop year, buying futures based on the percentage of the pool that has been sold. Tonnage committed to the BPC and FPC program after August 1 is essentially bought out of the pool accounts based on the relationship between the average futures on sales, the current futures values and the percentage of the pool sold.

Example

If the average futures value on CWB sales is $200 per tonne and the current futures price is $195 per tonne, there would be a gain of $5 per tonne on the futures position. Assuming the pool account is 30 per cent sold, the late sign-up adjustment factor would be a premium of $1.50 per tonne.

Late sign-up adjustment factor = (Average futures on CWB sales* to date – current futures*) x percentage of pool sold

($200 - $195) x 30% = $1.50 per tonne

If the current futures are lower than the average futures value on sales, the late sign-up adjustment factor will be a premium to reflect the lower cost to the hedging program of buying futures at the current market value rather than earlier. Conversely, if the current futures are higher than the average CWB futures position, the late sign-up adjustment factor will be a discount.

The late sign-up adjustment factor becomes more volatile as the crop year progresses and more sales are made. For instance if the pool was 70 per cent sold in the above example, the late sign-up adjustment factor would be $3.50 per tonne rather than $1.50. [($200 - $195) x 70 per cent = $3.50 per tonne].

BPC sign-up options

The late sign-up adjustment factor is always applied on the date of contract commitment. However, the basis and futures components of the BPC can be committed in two ways:

1. Lock in the basis level at sign up and then price the futures before the basis contract month expiry date. (See page 5 for sign-up and expiry dates.)
2. Price the futures value at sign up, and then lock in the basis level by the BPC sign-up deadline.

When a producer signs a BPC prior to August 1, the late sign-up adjustment factor will be zero because the tonnage committment is known before the start of the crop year.

The unpriced component of a BPC may be locked in incrementally or all at once. However, there is a minimum of 20 tonnes per lock-in transaction.

Example - Locking in a basis first and pricing the futures at a later date

On August 20, a producer locks in a December basis for a CWRS BPC at $12.20 per tonne. The late sign-up adjustment factor on that date is $1.45 per tonne. On November 15, the prod ucer locks in the Minneapolis Hard Red Spring futures at $200 per tonne on the existing BPC. The price established is $213.65 per tonne for No. 1 CWRS 13.5 per cent protein in store Vancouver or St. Lawrence.

The producer deducts $49.61 per tonne freight and elevator handling charges to arrive at a farmgate value of $164.04 per tonne.

	per tonne
Basis lock in value	$12.20
Late sign-up adjustment factor	$1.45
Futures lock in value	$200
BPC price	$213.65
Freight and handling	$49.61
Farmgate value	$164.04

Example – Pricing the futures first and locking in the basis at a later date

On May 10, a producer locks in the March Minneapolis Hard Red Spring futures at $210 per tonne for a CWHWS BPC. The late sign-up adjustment factor on that date is $0 per tonne. On September 25, the producer locks in the March basis at $14.50 per tonne against the BPC. The price established is $224.50 per tonne for the reference grade No. 1 CWHWS 13.5 per cent protein in store Vancouver or St. Lawrence.

The producer deducts $49.61 per tonne freight and elevator handling charges to arrive at a farmgate value of $174.89 per tonne.

	per tonne
Futures lock in value	$210
Late sign-up adjustment factor	$0
Basis lock in value	$14.50
BPC price	$224.50
Freight and handling	$49.61
Farmgate value	$174.89

Rollovers

Beginning August 1, producers have the option of rolling their locked-in basis to another futures month, for all or a portion of their committed tonnage, as long as the futures component of the BPC has not been priced. The basis month may be rolled either forward or backward, i.e. December to May or May to December. This provides producers with more time to price the futures component of their contract or to take advantage of market trends.

Rollovers are done on a flat price basis, which means that the original basis will be adjusted so that the total contract value (basis + futures + late sign-up adjustment factor) of the original basis is the same as the total contract value of the new basis on the day it is rolled. This is done by adding the difference between the two futures months to the original basis. So if the basis is rolled to a higher valued futures month, the basis will be adjusted downward. Alternatively, if it is rolled to a lower priced futures month, the basis will increase. The late sign-up adjustment factor is not affected by a rollover.

Rollover adjusted basis = original basis + (current basis month futures price – new basis month futures price)

There is a $1 per tonne administration fee for rollovers. There is no limit to the number of times the basis month can be rolled but the administration fee is charged each time. There is a minimum of 20 tonnes per rollover transaction.

Example

A producer locks in a December CWRS basis of $13 per tonne and a late sign-up adjustment factor of $1 per tonne on September 2. On November 14, before the December basis expiry date, the producer decides to roll the basis to a May contract when Minneapolis Hard Red Spring futures reach $195 per tonne for December and $200 per tonne for May. The producer's May basis is $8 per tonne.

Rollover adjusted basis = original basis + (current basis month futures price – new basis month futures price)

= $13 + ($195 - $200)
= $8 per tonne

Flat price value = basis + futures + late sign-up adjustment factor

Flat price value of original basis on November 14

= $13 + $195 +$1
= $209 per tonne

Flat price value of adjusted rollover basis on November 14

= $8 + $200 + $1
= $209 per tonne

Fixed Price Contracts

Wheat, feed barley and selected barley FPC

FPCs offer a flat price for wheat, durum, feed and selected barley. With the exception of durum, prices consist of the same components as BPCs (basis, futures and late sign-up adjustment factor). The difference is that all of the components of an FPC are priced on the same day, using the December futures and basis.

Fixed price = December basis + December futures + late sign-up adjustment factor

The fixed price can be either higher or lower than the PRO on any given day depending on the relationship between the futures markets and the forecasted average futures used in the basis calculation.

Durum FPC

Because there is no associated futures market for durum, the fixed price is calculated by subtracting the discount for risk, time value of money and administration from the CWB's PRO and adding the late sign-up adjustment factor.

Fixed price = PRO – discount + late sign-up adjustment factor

The risk component of the discount is an estimate of the change in the relationship between the PRO and the futures or cash values having a correlation to durum. The fixed price changes daily because of the risk calculation. The relationship between current market indicators and the PRO determine whether the fixed price for durum is higher or lower than the PRO.