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SXF S&P/TSX 60 Index Standard Futures

SXF Z19-H20 roll update

Summary of recent "rolls"

Since we published **"A guide to SXF roll"** in March 2019, there have been three roll periods. A closer look at these recent rolls—both on a standalone basis and in comparison with previous periods—can be informative as we enter the Z19/H20 roll.

In particular, we notice that:

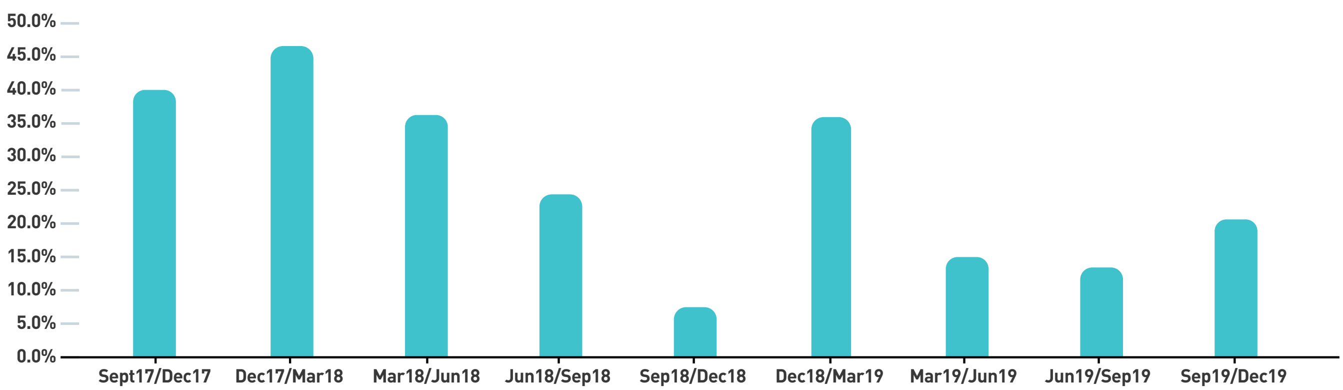
A. In line with long-term historical trends, the roll activity starts around 14 business days prior to the expiry of the front month contract. For the upcoming roll, this corresponds to December 3.

B. Similar to previous roll periods, the high point of the trading (in terms of the volume of contracts) was between 5 to 3 days prior to the expiry of the front month contract. For the upcoming roll, this corresponds to Dec. 13 to Dec. 17.

C. During the last three roll periods, only 20% or less of the open interest in the front month contract was left to expire. This is a noticeable drop from the previous periods. As can be seen in Figure 1, for the 6 previous rolls (from Sep17/Dec17 to Dec18/Mar19), on average, 30% of front month contracts expired without being rolled out.

FIGURE 1

Percentage of front month contract which were not "rolled" by expiry (relative to OI 14 days prior to expiry)

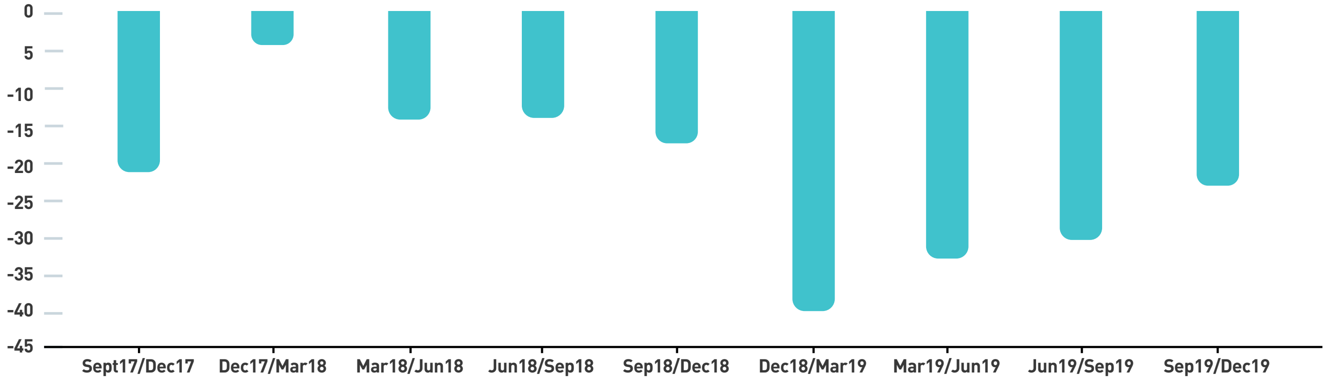


Source: Montréal Exchange, LFC calculations

D. The fact that during these last 3 periods more than 80% of the front month open interest was rolled out can be explained in part by the fact that these rolls were generally cheaper on a historical basis (i.e. the spread traded at a discount to fair value), making it compelling for those who were long the front month contract to buy the roll. Figure 2 shows that in the last three roll periods, the average cheapness of the daily VWAP (volume weighted average price) of the roll during the last 8 days of the roll period was at a 25-bps to 35-bps discount. This compares with an average discount for the six preceding periods of less than 20 bps, and it confirms the fact that holders of long positions had a strong incentive to roll out their positions instead of letting them expire.

FIGURE 2

Average cheapness of the roll (VWAP) over the last 8 days prior to expiry fo the front month contract



Source: LFC calculations

December is a little different

As Figure 1 shows, usually in December a significant portion of open interest in the front month contract is left to expire. While the data in this note is limited to two years, we can confirm some seasonality of this pattern (based on historical observations not presented here).

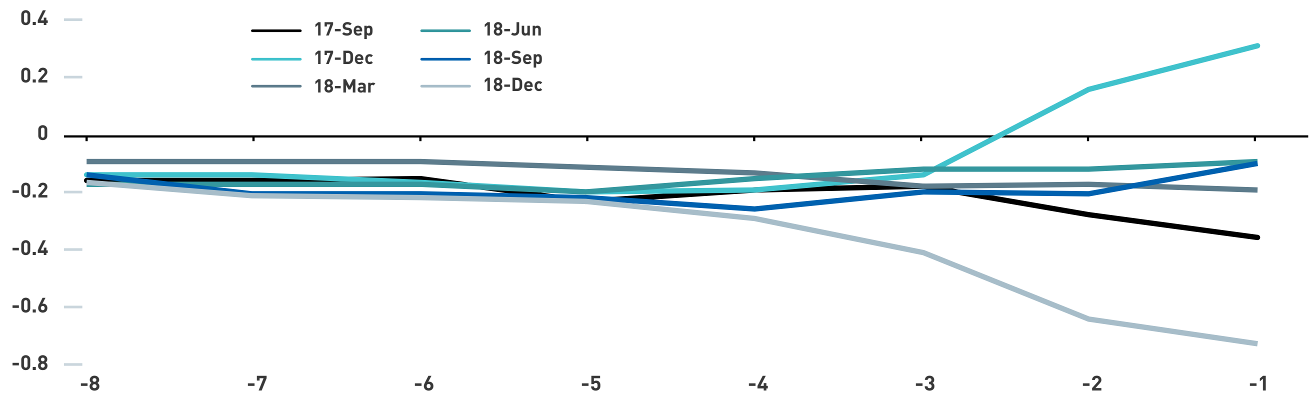
There are several possible explanations for this pattern. One is the fact that some over-the-counter (OTC) structures are likely to expire by the end of the fiscal year—for various reasons ranging from tax considerations to the financial reporting concerns of some institutions—, and to the extent that they are hedged using futures, those futures are left to expire. Another plausible explanation is the balance sheet considerations of banks and dealers. Banks have an incentive to "free up" the balance sheet at the end of the year due to regulatory considerations, so they may adopt a balance sheet management approach that might include allowing some of their futures positions to expire.

Additionally, a closer look at the Dec17/Mar18 and Dec18/Mar19 data highlights a strong directionality. Figure 3 highlights how in the last few days of the roll period it became directional in both Dec17 and Dec18. The explanation may lie in the additional inclination to let positions expire in December, as mentioned above.

In December, depending on whether it is sellers or buyers that are more prone to let their positions expire, there can be a lack of supply or demand in comparison to other roll periods. This may result in directionality when strong roll flows enter the market.

FIGURE 3

VWAP deviation from fair value of roll during the roll period



Source: LFC calculations

Finally, December also carries some other sources of uncertainty this year, in particular with respect to interest rate expectations.

It should be recalled that the two drivers of the fair value of the S&P/TSX60 futures contract are interest rate expectations and expected dividends over the life of the futures contract. More specifically:

Fair value = Index level x [interest rate x (# of days to future expiry/360)]

- Dividends (over the period left to future expiry)

Bank of Canada meeting

The Bank of Canada (BoC) meets on December 4, at the very start of the roll period. What is different this time is that interest rate expectations could materially change at this meeting.

As at this writing, the BoC is expected to hold rates unchanged (at 1.75%) at the December 4 meeting, with only 7% probability of a rate cut. However, the two following meetings, on January 22 and March 4, both fall within the period covered by the March 2019 SXF future, and hence any change in expectations about rate setting at these meetings could affect its fair value.

Market prices indicate an approximately 30% probability of a 25-bps rate cut by mid-March. If the December 4 meeting results in (somewhat of a surprise) cut, or if the BoC's communication signals a strong preference for a rate cut by mid-March, this will affect the fair value of the futures contract.

Table 1 presents estimates of the effect of a change in expectations of a rate cut at the December 4 meeting on the roll fair value. *Should the BoC cut interest rates (surprise) on December 4, the roll will cheapen by almost 7 bps.*

TABLE 1
December 4th BoC Meeting

Probability of rate cut	0%	20%	40%	60%	80%	100%
Effect on fair value of roll	0.000	-0.015	-0.029	-0.044	-0.059	-0.074

Source: LFC calculations

Table 2 estimates the effect on the roll fair value of a change in expectations of a rate cut at the January 22 meeting. Should the BoC clearly signal at its December 4 meeting that it will likely cut interest rates at its January meeting, *the effect will be a drop of around 3 bps in the roll fair value.*

TABLE 2
January 22th BoC Meeting

Probability of rate cut	0%	20%	40%	60%	80%	100%
Effect on fair value of roll	0.000	-0.008	-0.016	-0.024	-0.032	-0.040

Source: LFC calculations

Annual reporting of the banks

It is worth mentioning that this year almost all Canadian banks will report their earnings around the start of the roll activity (see Table 3).

The financial sector represents nearly 40% of the weight of the S&P/TSX60 index, and a material change in the dividends paid by the banks or any declaration of a special dividend could affect the fair value of the March 2020 futures and the roll.

TABLE 3
Estimated reporting date for earnings

BMO	Dec 3rd	Before open
CIBC	Dec 5th	Before open
National Bank	Dec 4th	After close
Royal Bank	Dec 4th	Before open
Scotia Bank	Reported on Nov 26th	
TD	Dec 5th	Before open

Source: LFC calculations

We estimate that a surprise 6% increase in dividend yield of all the banks will cheapen the fair value by 1 to 1.5 bps. We conclude that this effect is not material, but given the reporting schedule (which, interestingly, straddles the BoC meeting), it might be worthwhile for investors to wait for both of these events to occur before adopting a view and initiating their roll trades.

Summary

- The roll is likely to start being active on and after Dec. 5, given the BoC meeting (Dec. 4) and the earnings release schedule for Canadian banks.
- For holders of long positions, it is worthwhile to wait for these events before initiating the roll, given that any surprise will result in a decrease in fair value. Similarly, any holders of short positions might consider rolling at least part of their position before these dates, subject to finding enough liquidity.
- The roll is likely to start trading slightly cheap to fair value—historically 0.20 index point on average—and long holders should contemplate rolling at least part of their holding early, given this asymmetry.
- Keep in mind that a high percentage of positions in front month futures could be left to expire in December, and the roll could become more directional in the last week prior to expiry of the front contract.
- Therefore, as the roll progresses, it is important to keep a keen eye on any noticeable trend or directionality, and to act quickly if it is observed.

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In addition to niche derivatives strategies, LFC also provides risk-management, hedging and overlay advisory services to family offices, institutional investor and businesses.

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