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SXF S&P/TSX 60 Index Standard Futures

SXF H20-M20 roll update

Summary of the recent "roll"

Since we published the "**SXF Z19-H20 Roll Update**" in December 2019, the equity markets experienced their fastest sell-off since 1987, and it occurred exactly around the most active period for the Mar20/Jun20 roll. Let us take a closer look at the H20/M20 roll, which happened during a unique period of market turmoil, before discussing the upcoming Jun20/Sep20 roll.

In particular, we notice that:

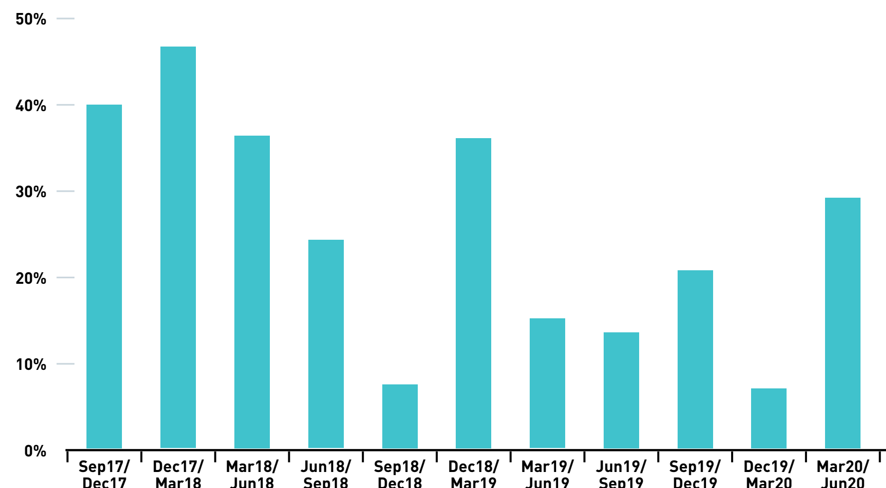
A. In line with long-term historical trends, the roll activity starts around 14 business days prior to the expiry of the front month contract. For the upcoming roll this corresponds to a start at around June 5.

B. Similar to previous roll periods, the high point in the trading (in terms of volume of contracts) was between 5 to 3 days prior to expiration of the front month contract. For the upcoming roll, this corresponds to June 15 to June 17.

C. During the H20/M20 roll periods, nearly 30% of the open interest in the front month contract (H20) was left to expire. This is noticeably higher than the rolls in the preceding year, since we have to go back to the Dec 18/Mar19 roll period to observe this level of "unrolled" front month positions (see Figure 1).

FIGURE 1

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

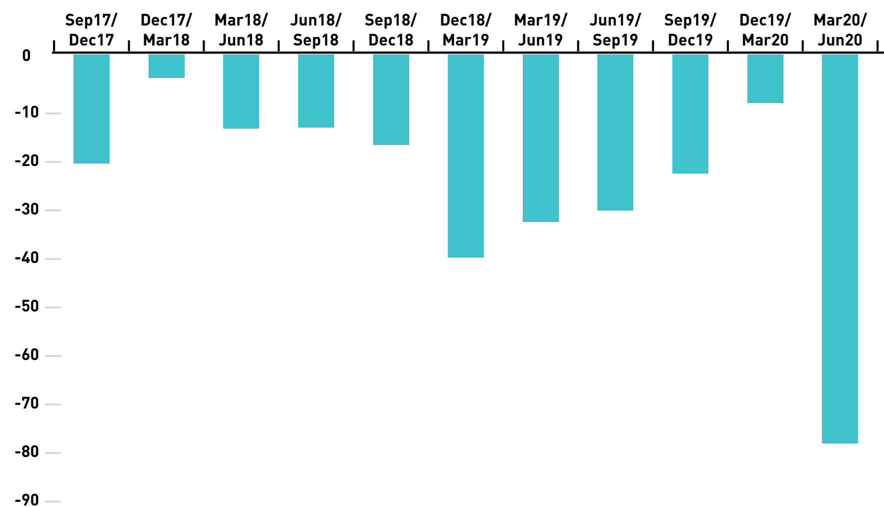


Source: Montréal Exchange, LFC calculations

D. During the H20/M20 roll period, 30% of open interest was left to expire. This was in part due to the fact that this roll was the cheapest in recent history. The spread traded at an average discount to fair value of over 80bps in the last 8 days of roll activity. As Figure 2 shows, the average of the daily VWAP (volume weighted average price) of the roll discount over the last 8 days of the roll period was extreme. The largest recent discount was in December 2018 (40bps), and it was only half the value observed in March 2020 (80bps). Interestingly, December 2018 was also the most recent period in which many positions in the front month contract were left to expire.

FIGURE 2

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



Source: Société Générale Canada

Given the extreme market volatility in March and the rapid sell-off in the S&P/TSX60, it is important to add a few comments and observations.

In a period of market turmoil such as that witnessed in March 2020, the calculation of fair value itself is subject to considerable uncertainty, as the inputs depend very much on each participant's view of what lies ahead (i.e. from March to June 2020). In fact, both key inputs to the fair value of the roll (see "**A guide to SXF Roll**") were extremely uncertain during that period, and this very likely led market participants to derive a wide range of (their own) fair values.

(Note: the fair value data used in this article – courtesy of Société Générale Canada - are based on interest rate and dividend expectations provided by Bloomberg).

Remember that the two drivers of the fair value of the S&P/TSX60 future contract are interest rate expectations and expected dividends over the future contract's life. More specifically:

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

- Dividends (over the period left to future expiry)

- **Interest rates:** The U.S. Federal Reserve cut the federal funds rate in two special meetings on March 3 and March 15, just as we headed into the last week of trading the roll. Meanwhile, the Bank of Canada (BoC) cut its key policy rate by only 50bps at the scheduled March 4 meeting (before the roll was really active), had a less dovish message, and projected a more tempered and "calm" image. As a result, market expectations for further cuts were not priced as aggressively as in the U.S. at that point.

  BoC cut another 50bps at an unscheduled meeting on March 16, right at a time when the roll was most active (the next rate cut was on March 27, after the roll had ended, but expectations still affected the June contract's fair value, for almost its entire duration).

One can see how this dynamic situation compounded with a stressed equity market, complicating the decision-making process for investors. In fact, even after the rate cut of March 4, the market implied only part of an additional 25bps for a few days, and only on March 12 were serious additional rate cuts (25-50bps) priced in. For instance, during the days leading up to March 12, if a holder of long positions in futures thought that the BoC was likely to cut rates aggressively (more than what had been priced in by the market), he/she would have found June futures too rich (compared to a fair value calculation using Bloomberg or market data) and would have held back on rolling. In fact, this was proven correct.

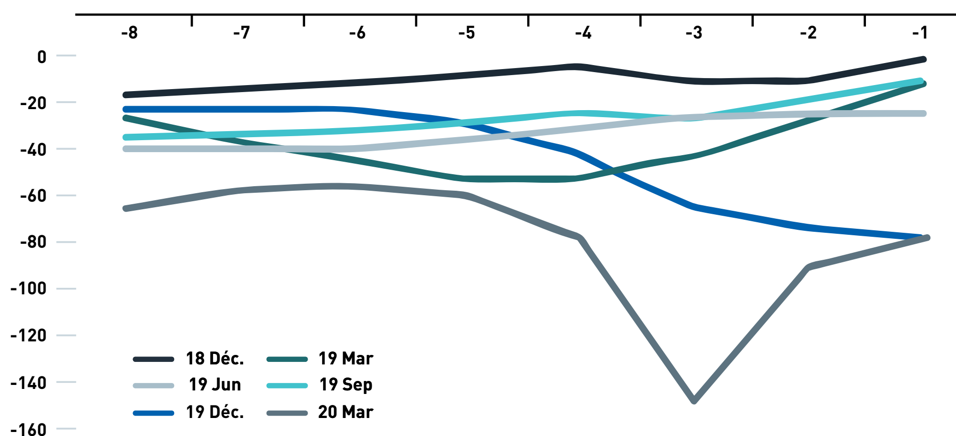
- **Dividends:** Most investors and governments were not ready for the shock of the pandemic and the sell-off in equity markets. As things evolved, by mid-March it became increasingly clear that lockdowns would heavily affect the economic outlook and corporations in a variety of ways. Markets started pricing dividend cuts (in the U.S. and Europe this was evident in the drop in price of dividend futures, while in Canada the options market can be used to calculate the implied dividends for various maturities).

  At that point, investor views on dividend cuts would similarly affect their own perceptions/calculations of fair value versus market values. For instance, if an investor thought that the dividend cuts priced by the market were too aggressive, then he/she would find the fair value – as calculated using Bloomberg or market data – too rich.

It is important to note that the order of magnitude of the effect of interest rates and dividends on the Mar20/Jun20 roll would have been at most 40-60bps, yet the roll traded consistently cheaper than fair value, by 60bps or more (as cheap as 140bps around the time of the BoC's unscheduled cut, see Figure 3). We can therefore conclude that the Mar20/Jun20 roll was under strong selling pressure.

FIGURE 3

VWAP deviation from fair value of roll during the roll period in bps (x-axis days to expiry)



Source: Société Générale Canada

This was also due to the fact that once June became the front month, pressure to sell flowed into the market (i.e. investors selling the June contract on a standalone basis). This, combined with lower liquidity and the potential absence of the usual index arbitrageurs – as many broker dealers were likely dealing with other pressing issues or did not want to deploy additional capital in the cash versus futures arbitrage – drove the spread lower. The Mar20/Jun20 roll will remain a great case study of all the things that can affect a roll and a unique event, and for this reason it will be worth reviewing from time to time.

A new world for rolling SXF?

So where do we stand today, as far as the upcoming roll is concerned?

The overnight interest rate now stands at 0.25%. **Unless one thinks that interest rates are likely to go negative by mid-September (this is always a possibility, but highly unlikely), the fair value of the roll will have a limited dependency on interest rates in the upcoming Jun20/Sep20 roll**: a rate cut taking us to 0% in June would have an effect of approximately 7.5bps (dropping) on fair value. The main drivers of the upcoming roll will be: dividend expectations, liquidity and positioning.

Index dividends is the other key variable for estimating the fair value of the roll. The economic effects of the pandemic can be of great concern in terms of the viability, for companies, of continuing to make their dividend payments, and at the same rate as in the pre-pandemic era. In fact, in the United States investors expect a significant drop in dividends on the S&P500 index in 2020 – dividend futures have dropped from 63 index points to 45 points (a 30% decline).

In Canada, so far the dividend picture seems to be more stable. In fact, all the major Canadian banks have reported earnings and declared dividends in the last few weeks and prior to the start of roll season, thus removing a great amount of uncertainty for this roll period. Interestingly, they all kept their dividends at similar levels to before, despite taking greater provisions for loan losses.

Very few constituents of the S&P/TSX60 will report earnings during the roll period.[1] The effect of any change in dividends by these companies will have very little effect of the fair value of the roll.

Summary

- The roll is likely to start becoming active around and after June 5.
- Given the current overnight rate (0.25%) and the stability of dividend expectations (the Canadian banks - which represent some of the largest weights in the index - announced their dividends in late May), only an episode of stress in the financial markets could materially affect the roll's fair value. In such a scenario, a full rate cut priced by September would have a maximum effect of 7.5bps (cheaper).
- Any news affecting strong shifts in views on dividends during the roll period (for example a noticeable increase in corporate defaults, which would change market expectations of dividends payable for Q3 and beyond) would move the roll price higher.
- Given the market dynamics in March and the major historic rally that followed, it is difficult to have a strong view on positioning ahead of this roll period.
    - On the one hand, we would need to gauge to what extent institutional accounts participated in the rally or allocated more to equities as bonds outperformed in Q1; this would have resulted in new long positions in line with or above their historical levels of holdings (as a % of futures outstanding).
    - On the other hand, we need to assess the effect of the sell-off on the positioning of broker dealers – who are "naturally" short on index futures – since there were shifts in both their structured product portfolios and some of their more vanilla product exposures (i.e. swaps).
- In general, the roll is likely to start trading slightly cheap to fair value - historically 20-30bps on average - and long holders should contemplate rolling at least part of their holdings early, given that asymmetry.
- During this roll period it will be particularly important to keep a keen eye on any noticeable trend or directionality (via price action, open interest and vs. fair value) for any strong clues on positioning, and act swiftly if one detects a clear bias in positioning.

1 Dollarama (June 10) and Saputo (June 4) are the most notable ones.

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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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