MEMORANDUM

TO: File Number S7-09-19

FROM: Sheila Dombal Swartz, Senior Special Counsel
Office of Financial Responsibility, Division of Trading and Markets
U.S. Securities and Exchange Commission

DATE: July 29, 2019

RE: Meeting with Representatives of OneChicago

On July 16, 2019, Commission staff participated in a meeting with representatives of OneChicago to discuss the amendments to the margin rules regarding security futures proposed jointly with the CFTC (Release No. 34-86304). In particular, representatives of OneChicago requested that the Commission recognize that STARS positions are economically equivalent to OCC cleared stock loan transactions and provide for risk based margin for STARS positions as part of the aligning margin requirements for security futures with requirements for similar financial products under the rulemaking process for the current proposed rule.

Commission staff at the meeting included Mike Macchiaroli, Tom McGowan, Sheila Swartz, Tim Fox, and Abraham Jacob.

OneChicago representatives at the meeting included Tom McCabe and Graham Deese.

Attachment
STARS™

The Exchange-traded Alternative to Stock Loan and Equity Repo
What is a STARS?

• Securities Transfer And Return Spreads ("STARS")
• STARS are integrated transfers consisting of a front leg which is a Single Stock Future ("SSF") expiring at the end of the trading day and a back leg which is an SSF with the same underlying and equal and opposite size expiring at a future date.
• STARS transfers are perfectly hedged by design. A market participant cannot change their risk profile by using a STARS transfer.
• All STARS transfers are centrally cleared with the Options Clearing Corporation ("OCC") acting as the central counterparty.
STARS: Security Finance Transfer

- STARS allows market participants to transfer and replace stock and cash without changing their risk profile. Participants do this to earn a risk-free profit, manage their balance sheet, or gain short exposure.

- Front leg expiration causes a transfer of stock T+1 through NSCC. Back leg reverses the transfer when it expires. STARS facilitates the transfer of stock, and guarantees its return. STARS is economically identical to an Over the Counter ("OTC") Equity Repo or Stock Loan.

- Equity Repo: Lender transfers cash to borrower who transfers stock as collateral and enter into a derivative.

- Stock Loan: Lender transfers stock to borrower who transfers cash as collateral and enter into a derivative.
• STARS price is negotiated as the difference between two SSF contracts and is presented in terms of Basis Points (1 Basis Point = 0.01%). It represents the interest rate over the time.

• Imagine a STARS trade in Ford. If market participants priced the interest rate at 3%, the STARS transfer would be executed at 300 Basis Points annualized to term.

• Participants do not determine the individual leg prices. The leg prices are determined by the exchange based on the negotiated spread price. The actual leg prices are irrelevant for the economics of the transaction.

• If on May 23rd, the stock price of Ford was $10 and the participants traded a 2019-09-20 F1D STARS at 300 BP, the spread would be priced as follows:
  • Front Leg Price = Stock Price = $10
  • Back Leg Price = Front Leg Price + Trade Price * ([Days between 5/23 and 9/20]/360) = 10 + 3%*(120/360) = 10 + 1% = $10.10
Borrower
• Leverages existing stock position as collateral to secure short term cash without altering their risk profile.
• Who does this trade?
  • Anyone who wants to temporarily monetize their collateral.
  • Anyone who wants to migrate away from a high margin loan.

Lender
• Uses cash position to earn a risk-free profit.
• Who does this trade?
  • Anyone with excess cash looking to earn benchmark+ rates in a risk-free environment.
  • Investors dissatisfied with the low rates of return in traditional savings accounts.
STARS Equity Repo

Every Equity Repo will have both a borrower and a lender. The borrower is looking to either optimize their balance sheet or to receive a short term loan of cash. The lender is looking to earn a risk-free profit on cash that is underperforming. The lender will accept any General Collateral (“GC”) stock as collateral for the loan of cash. In this example, the borrower uses Ford stock to secure the loan. The borrower and lender would both benefit from executing a STARS.

<table>
<thead>
<tr>
<th>Buy Side Participant</th>
<th>Sell Side Participant</th>
<th>Date</th>
<th>Instrument</th>
<th>Trade Price</th>
<th>Qty</th>
<th>Front Leg Price</th>
<th>Back Leg Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lender</td>
<td>Borrower</td>
<td>2019-05-23</td>
<td>2019-09-20 F1D</td>
<td>$0.10</td>
<td>100</td>
<td>$10.00</td>
<td>$10.10</td>
</tr>
</tbody>
</table>
Borrower and lender execute a 2019-09-20 F1D STARS transaction. The transfer involves:
  • Front Leg (expiring May 23, 2019): The borrower enters a short position and the lender enters a long position.
  • Back Leg (expiring September 20, 2019): The borrower enters a long position and the lender enters a short position.

The borrower’s net exposure is still 10,000 shares long of Ford as the SSF positions cancel each other out.

The lender’s net exposure is still 0 shares of Ford as the SSF positions cancel each other out.

The OCC acts as Central Counterparty guaranteeing both sides of the transaction.

<table>
<thead>
<tr>
<th>Prices</th>
<th>Ford Stock</th>
<th>F4H SSF</th>
<th>F1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$10.00</td>
<td>$10.00</td>
<td>$10.10</td>
<td>300BP</td>
</tr>
</tbody>
</table>
STARS Equity Repo: Front Leg Expiration

- At close of business on May 23, 2019, the F4H contract expires.
- Through the expiration process, 10,000 Ford shares are transferred to the lender and $100,000 is transferred to the borrower.
- Neither party’s net exposure changes:
  - The borrower is long 10,000 Ford shares synthetically through the SSF.
  - The lender has no delta exposure as the short SSF offsets the stock the lender is holding.

### Prices

<table>
<thead>
<tr>
<th>Prices</th>
<th>Ford Stock</th>
<th>F1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$10.00</td>
<td>$10.10</td>
<td>300BP</td>
</tr>
</tbody>
</table>

### Cash Flow

<table>
<thead>
<tr>
<th>Borrower</th>
<th>Cash: $100,000</th>
<th>100 F1D SSF (Long): $101,000</th>
<th>Cash Flow: +$100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lender</td>
<td>10,000 Shares F Stock: $100,000</td>
<td>Cash: $0</td>
<td>100 F1D SSF (Short): $101,000</td>
</tr>
</tbody>
</table>
STARS Equity Repo: Guaranteed Returns

- The cash flow of a STARS transaction is baked into the initial trade so that no matter how prices move, the profit will not change.
- The futures positions obligate both sides of the STARS to unwind through transfers that return them to their original positions.
- The interest cost for the borrower is determined by subtracting the value of the future from the cash flow
  - Interest cost = Cash Flow – SSF Value
  - Interest cost = $100,000 - $101,000 = -$1,000
- The interest income for the lender is determined by subtracting their cash flow from the value of the future
  - Interest income = SSF Value – Cash Flow
  - Interest income = $101,000 - $100,000 = $1,000
- These levels will not change as the interest component is determined by the trade price (Trade price * Number of Contracts * Contract size)
On May 24, 2019, Ford stock price rises from $10 to $12. End of day Variation Pay/Collect cycle causes lender to pay $20,200 and borrower to receive $20,200. Note that the value of the SSF rises by more than the value of the stock. This is because as the value of stock increases, the corresponding value of the interest component rises as well. Despite the change in stock price, the interest cost of the borrower and interest income of the lender remain unchanged.
STARS Equity Repo: Time Decay

- On June 3, 2019, there is no move in the stock or change in the interest rate, but the price of F1D SSF declines from $12.12 to $12.11.
- End of Day Variation Pay/Collect cycle causes lender to receive $100 and borrower to pay $100.
- As expiration approaches the difference between the SSF price and the stock price decreases as the value of the interest component decays.
- The interest component = Interest Rate * (days to expiration/360)
  - On May 23: 300BP * (120/360) = 1%
  - On June 3: 300BP * (109/360) = 0.9%
- Through the process of time decay, the lender slowly realizes their profit over the term of the transaction.
On June 5, 2019, the general interest rate doubles from 300bp to 600bp. This causes the price for 2019-09-20 F1D SSFs to rise from $12.11 to $12.22.

End of Day Variation Pay/Collect cycle causes lender to pay $1,100 and borrower to receive $1,100.

Despite the change in interest rate, the interest cost of the borrower and interest income of the lender remain unchanged.

**Prices**

<table>
<thead>
<tr>
<th>Prices</th>
<th>Ford Stock</th>
<th>F1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$12.00</td>
<td>$12.22</td>
<td>600BP</td>
</tr>
<tr>
<td>Change</td>
<td>-</td>
<td>+$0.11</td>
<td>+300BP</td>
</tr>
</tbody>
</table>
On July 22, 2019, the price of Ford stock decreases from $12 to $11.

End of Day Variation Pay/Collect cycle causes lender to receive $10,200 and borrower to pay $10,200.

### Prices

<table>
<thead>
<tr>
<th>Prices</th>
<th>Ford Stock</th>
<th>F1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$11.00</td>
<td>$11.11</td>
<td>600BP</td>
</tr>
<tr>
<td>Change</td>
<td>-$1.00</td>
<td>-$1.02</td>
<td>-</td>
</tr>
</tbody>
</table>
STARS Equity Repo: Dividend

- On July 24, 2019 Ford stock goes ex-dividend for $0.50 per share. The lender receives $5,000 in dividend income.
- On July 24, 2019 Ford stock opens at $10.50 to account for the dividend so the total value of Stock + Dividend is unchanged.
- Prior to the opening on July 24, the SSF contract is adjusted down by the amount of the then known dividend but no pay/collection is triggered.
- Neither side’s economic position is effected.

### SSF Dividend Adjustment

<table>
<thead>
<tr>
<th>Stock Price</th>
<th>Dividend</th>
<th>Interest</th>
<th>Dividend Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10.50</td>
<td>$0.50</td>
<td>$0.11</td>
<td>$0.50</td>
</tr>
</tbody>
</table>

### Prices

<table>
<thead>
<tr>
<th></th>
<th>Ford Stock</th>
<th>F1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$10.50</td>
<td>$10.61</td>
<td>600BP</td>
</tr>
<tr>
<td>Change</td>
<td>-$0.50</td>
<td>-no P/C</td>
<td>-</td>
</tr>
</tbody>
</table>
On September 20, 2019, Ford stock closes at $10.50 and the SSF contract expires. Because there is no time left on the contract, the interest component of the SSF price is necessarily $0 and the SSF expires at $10.50. At this point in time, both lender and the borrower are holding an extra $5,000 in cash due to the dividend income and dividend adjustment respectively. This extra $5,000 cash should be included as SSF value when determining profit levels.

**Borrower**
- Interest cost = $109,000 – ($105,000 + $5,000) = -$1,000

**Lender**
- Interest income = ($105,000 + $5,000) - $109,000 = $1,000

### Prices

<table>
<thead>
<tr>
<th>Prices</th>
<th>Ford Stock</th>
<th>F1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$10.50</td>
<td>$10.50</td>
<td>600BP</td>
</tr>
</tbody>
</table>
STARS Equity Repo: Back Leg Expiration

- Through the expiration process the lender transfers 10,000 F shares to the borrower at $10.50 per share and in turn the borrower transfers $105,000 to the lender.
- Though the value of stock rose from $100K to $105K ($110K when including dividend income), this does not factor into the borrower’s profit/loss since they would have realized this gain whether or not they did STARS transfers.
- At this point both parties have returned to their original positions and Cash Flow = Profit

<table>
<thead>
<tr>
<th>Prices</th>
<th>Ford Stock</th>
<th>F1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$10.50</td>
<td>$10.50</td>
<td>600BP</td>
</tr>
</tbody>
</table>
STARS Equity Repo: Yield Enhancement

- Though the borrower and the lender have -$1,000 and $1,000 interest costs and interest income respectively on the STARS transaction, this does not necessarily accurately reflect their profit/loss.

- An important aspect to consider is the opportunity cost of the cash they are holding. The opportunity cost of the lender is investing the money in a risk-free interest-bearing account, and that potential income needs to be subtracted from their STARS income to calculate economic profit.

- Likewise, the borrower can invest the cash they receive through the STARS in an interest-bearing account which decreases their costs.

- For example if an interest-bearing account for cash earns 100BP, investing the cash balance available would net the borrower $373.00 in income between May 23, 2019 and September 20, 2019. This reduces their cost to $627.00. By the same logic, because they entered the STARS, the lender cannot put their cash into the interest bearing account, reducing their income to $627.00.
Even though the SSF may have cost for the borrower to hold, that will often be less than the cost of holding stock by using a margin loan from their broker.

This would require the borrower to use $50,000 of their own money (forfeiting the potential interest) and $50,000 of their broker’s money to buy $100,000 of stock.

Assuming that the Reg T rate is 50%, the saving’s rate is 1% and the broker charges 5% for a margin loan, (all generous rates in today’s market) the borrower would lose $166.67 from foregone interest on their cash and pay $833.33 on the margin loan, costing them a total of $1,000.

As demonstrated previously, the cost of holding the Ford position synthetically through the SSF is $627.00 for the borrower.

The borrower profits $373.00 by holding the position through an SSF because it is less expensive than the alternative.
Borrower

- Obtains a synthetic short position in TLRY stock.
- Who does this trade?
  - Anyone looking to short a stock at cheaper rates than are available at a brokerage.
  - A market participant looking to improve their financing rate.
  - A participant who wants to lock in their borrow rate.

Lender

- Earns a risk-free return on a stock position without altering their risk profile.
- Who does this trade?
  - Anyone who is holding a hard to borrow stock and wants to earn additional yield.
Like an Equity Repo, every Stock Loan will have both a borrower and a lender. The borrower is looking to either short a stock or refinance an existing short at a superior rate. They will use cash as collateral for the loan. The lender is looking to earn a risk-free profit on a stock they hold in their portfolio. In this example, the borrower is looking to short Tilray (TLRY) stock.

Assume that TLRY is trading at $50 per share and that the hard to borrow rate is 30% for TLRY.

### STARS Transaction

<table>
<thead>
<tr>
<th>Buy Side Participant</th>
<th>Sell Side Participant</th>
<th>Date</th>
<th>Instrument</th>
<th>Trade Price</th>
<th>Qty</th>
<th>Front Leg Price</th>
<th>Back Leg Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrower</td>
<td>Lender</td>
<td>2019-05-23</td>
<td>2019-09-20 TLRY 1D</td>
<td>-$5.00</td>
<td>20</td>
<td>$50.00</td>
<td>$45.00</td>
</tr>
</tbody>
</table>
Borrower and lender execute a 2019-09-20 TLRY1D STARS transaction. The transfer involves:

- Front Leg (expiring May 23, 2019): The borrower enters a long position and the lender enters a short position.
- Back Leg (expiring September 20, 2019): The borrower enters a short position and the lender enters a long position.

The borrower’s net exposure is still 0 shares of Tilray as the SSF positions cancel each other out.

The lender’s net exposure is still 2,000 shares long of Tilray as the SSF positions cancel each other out.

The OCC acts as Central Counterparty guaranteeing both sides of the transaction.

<table>
<thead>
<tr>
<th>Prices</th>
<th>TLRY Stock</th>
<th>TLRY4H SSF</th>
<th>TLRY1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$50.00</td>
<td>$50.00</td>
<td>$45.00</td>
<td>-3000 BP</td>
</tr>
</tbody>
</table>
At close of business on May 23, 2019, the front leg expires, which through the expiration process transfers 2,000 TLRY shares to the borrower and $100,000 to the lender.

Neither party's net exposure changes:

- The borrower is delta neutral Tilray shares as the short SSF offsets the stock the borrower is holding.
- The lender is long 2,000 Tilray shares synthetically through the SSF.

### Prices

<table>
<thead>
<tr>
<th>Prices</th>
<th>TLRY Stock</th>
<th>TLRY1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$50.00</td>
<td>$45.00</td>
<td>-3000BP</td>
</tr>
</tbody>
</table>
STARS Stock Loan: Animating the Short

- If the borrower only executes the STARS transaction, they are in a riskless, delta neutral position with no opportunity to profit from Tilray price moves.
- To short Tilray, they have to execute another transaction.
- The borrower sells their shares of Tilray stock through the auspices of the National Market System.
- This leaves them with short exposure to Tilray’s movements through the SSF.
- The borrower will profit if the price of Tilray drops below $45. If it drops less than $45, the gains from the decline in price will not fully offset the losses on interest payments for the borrow. They are exposed to price moves in Tilray.
  - Profit = Cash Flow = $0
  - The lender has a risk-free income equal to cash flow minus SSF value similar to the interest income in an equity repo.
    - Income = Cash Flow – SSF Value = $100,000 - $90,000 = $10,000
STARS Stock Loan: Time Decay

- On May 24, 2019, there is no change in the stock price or the interest rate.
- Because of time decay, TLRY1D closes at $45.04.
- This causes the borrower to pay $80 and the lender to receive $80 through daily Variation Pay/Collect.
- The lender’s return is realized through the time decay process.

<table>
<thead>
<tr>
<th>Prices</th>
<th>TLRY Stock</th>
<th>TLRY1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$50.00</td>
<td>$45.04</td>
<td>-3000BP</td>
</tr>
<tr>
<td>Change</td>
<td>-</td>
<td>+$0.04</td>
<td>-</td>
</tr>
</tbody>
</table>

Prices
STARS Stock Loan: Price Move

- On June 4, 2019, the stock price of Tilray declines from $50 to $40.
- The end of day Variation Pay/Collect cycle causes the lender to pay and the borrower to receive $18,120.
- The daily Variation Pay/Collect cycle allows the borrower to realize their profits on a daily basis.
- Additional time decay has occurred between May 24, 2019 and June 3, 2019.

### Prices

<table>
<thead>
<tr>
<th>Prices</th>
<th>TLRY Stock</th>
<th>TLRY1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$40.00</td>
<td>$36.40</td>
<td>-3000BP</td>
</tr>
<tr>
<td>Change</td>
<td>-</td>
<td>-$9.06</td>
<td>-</td>
</tr>
</tbody>
</table>
On June 5, 2019, the hard to borrow rate on Tilray declines from 30% to 15%.

The lower hard to borrow rate decrease the discount of the TLRY1D futures compared to TLRY stock.

The resulting Variation Pay/Collect causes the borrower to pay and the lender to receive $3,640.

Despite the change in interest rate, the profits for both parties remain the same.
STARS Stock Loan: Price Increase

- On July 10, 2019, the price of Tilray increases from $40 to $45.
- This triggers a Variation Pay/Collect of $9,740

### Prices

<table>
<thead>
<tr>
<th></th>
<th>TLRY Stock</th>
<th>TLRY1D SSF</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$45.00</td>
<td>$43.65</td>
<td>-1500BP</td>
</tr>
<tr>
<td>Change</td>
<td>-</td>
<td>+$4.87</td>
<td>-</td>
</tr>
</tbody>
</table>
On September 20, 2019, TLRY stock closes at $45.
The SSF also closes at $45.
The borrower now must obtain TLRY stock in order to fulfill their delivery obligations. In this case, they purchase the stock through the National Market System.
The borrower’s profit is equal to:
- Profit = SSF Value + Cash Flow
- Profit = $90,000 - $90,000 = $0
The borrower transfers 2,000 TLRY shares at $45 per and receives $90,000 in return.

The lender’s return and the borrower’s costs reflect the hard to borrow premium established at the trade initiation.
• Similar to the equity repo, the parties who hold cash have the opportunity to invest that cash and earn interest before the back leg of the STARS expires.

• Assuming a 1% annualized return on cash investments:
  • Borrower: $376.39
  • Lender: $320.41

• This brings total profits to +$376.39 and +$10,320.41 for the borrower and lender respectively.

• Note that the borrower has higher cash profits because they were holding more cash than the lender through much of the contract period. If the TLRY had moved in the opposite direction, the lender would have had more profits from their cash investment.
1. STARS are traded at the OneChicago marketplace and then centrally cleared at OCC.

2. In a STARS transaction, the lender transfers stock to the borrower in exchange for interest and cash.

3. By using a STARS as a stock loan, a market participant can borrow in order to create short exposure or refinance an existing short position.

4. The lender avails himself of the discount rate of the long dated future which he otherwise cannot enjoy.

5. The lender receives their interest payments over time as the price of back leg converges with the stock price due to time decay.

6. The daily Variation Pay/Collect cycle, or variation margin, ensures that losses and gains are realized each day.

7. A STARS transfer is by itself a riskless transaction. The two legs of the transaction are necessarily equal and opposite.

8. The borrower converts their position to a risk position by selling the stock. Once they have sold the stock they earn a profit on downward movements in the stock due to the short SSF position.
Comparison: Over the Counter Stock Loan

Instead of making their stock available for loan through a STARS transaction the borrower and lender could use the traditional method of an Over the Counter ("OTC") transaction. This type of stock loan arrangement can be found in both cleared and uncleared markets. For our purposes, we will look at the Stock Loan agreements that clear at OCC in the same risk pool as STARS transactions.

The borrower and the lender form an agreement under which the lender will transfer 2,000 shares of Tilray to the borrower and the borrower will pay 3000BP in interest for the term of the loan. The borrower transfers an amount equal to the value of the stock as collateral to the lender.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Date</th>
<th>Side</th>
<th>Instrument</th>
<th>Price</th>
<th>Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrower</td>
<td>2019-05-23</td>
<td>Transfers</td>
<td>$100,000</td>
<td>-</td>
<td>Pays 3000BP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transferred</td>
<td>2000 TLRY Stock</td>
<td>$50.00</td>
<td></td>
</tr>
<tr>
<td>Lender</td>
<td></td>
<td>Transfers</td>
<td>2000 TLRY Stock</td>
<td>$50.00</td>
<td>Earns 3000BP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transferred</td>
<td>$100,000</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Stock Loan Agreement
The lender transfers 2,000 TLRY shares to the borrower and the borrower posts $100,000 in collateral with the lender.

As part of the loan agreement, the borrower's collateral will be trued up with the value of the TLRY stock at the end of each day. Thus, if TLRY stock goes up, the borrower must increase their collateral, if TLRY goes down, some of their collateral will be returned.

In their current position, the profit/loss the borrower makes on the TLRY stock will be offset by the collateral payments in the loan agreement. Their net exposure has not changed.
OTC Stock Loan: Animating the Short

- If the borrower only executes the Loan agreement, they are in a riskless, perfectly hedged position with no opportunity to profit off of Tilray price moves exactly like a STARS.
- To short TLRY, they have to execute another transaction.
- The borrower sells their shares of TLRY stock through the auspices of the National Market System.
- This leaves them with short exposure to Tilray’s movements through the daily reconciliation of collateral in the loan agreement exactly as it occurs in the futures market.
The parties agree to clear the stock loan through the OCC.

On June 4, 2019, the stock price of Tilray declines from $50 to $40.

This reduces the amount of collateral needed by the lender by $20,000 which is returned to the borrower at the end of the day through the OCC daily Variation Pay/Collect cycle.

As a result, the borrower receives $20,000.
On July 10, 2019, the price of Tilray increases from $40 to $45. This causes the collateral required by the lender to increase by $10,000. The $10,000 is moved through the OCC daily Variation Pay/Collect cycle.
OTC Stock Loan: Ending the Agreement

- On September 20, 2019, TLRY stock closes at $45.
- The borrower decides to end the stock loan agreement.
- The borrower now must obtain TLRY stock in order to transfer back to the lender. In this case, they purchase the stock through the National Market System.
- Once the borrower repurchases the stock, they have unanimated the short and are no longer exposed to TLRY.
- Once the borrower has unanimated the short their profit is equal to:
  - Profit = Proceeds + Agreement
  - Profit = $10,000 - $10,000 = $0

### Prices

<table>
<thead>
<tr>
<th>Prices</th>
<th>TLRY Stock</th>
<th>Interest Rate</th>
<th>Interest Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD Price</td>
<td>$45.00</td>
<td>-3000BP</td>
<td>$10,000.00</td>
</tr>
<tr>
<td>Change</td>
<td>-</td>
<td>-</td>
<td>+$83.33</td>
</tr>
</tbody>
</table>
OTC Stock Loan: Reversal Transfer

- The Borrower transfers 2,000 TLRY shares at $45 per and receives $90,000 in return.
- The lender has a $10,000 profit from the interest payments.
- The borrower profits $10,000 through the borrowing the stock and pays $10,000 in hard to borrow premium that are paid outside of the OCC process.

**Prices**

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<tr>
<td>Change</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Cash Flow:**
- Borrower: +$0
- Lender: +$10,000

**Cash:**
- Borrower: $100,000
- Lender: $90,000

**Loan Agreement:**
- $10,000

**Cash Flow:**
- 2,000 Shares TLRY:
  - Borrower: -$90,000
  - Lender: $90,000
OTC Stock Loan Summary

1. Stock Loan agreements are traded and cleared at OCC.
2. In a Stock Loan agreement, the lender transfers stock to the borrower in exchange for interest and cash collateral.
3. Using the stock loan agreement, a market participant can borrow securities in order to short them.
4. The lender earns a risk-free profit off of the interest they are paid through the stock loan agreement.
5. The lender receives an interest payment each day the agreement is active.
6. At the end of each day, there is a payment between the borrower and lender to ensure that the value of the collateral is equal to the value of borrowed security.
7. Borrowing stock in and of itself is a riskless transaction movements in the stock are offset by daily collateral payments.
8. The borrower converts their position to a risk position by selling the stock. Once they have sold the stock they earn a profit on downward movements in the stock.
OTC Stock Loan vs. STARS Stock Loan

Which is which?

What is the difference?

20% Margin

Risk-Based Margin