Margin Examples

Click on an example below to learn more:

- Securities Margin (Stock)
- Commodities Margin (Futures)
- How to Determine the Last Stock Price Before We Begin to Liquidate the Position
- How Much Stock Do We Liquidate?

Example: Securities Margin Example

The following table shows an example of a typical sequence of trading events involving securities and how they affect a Regulation T (Reg T) Margin Account.[1]

Day 1: Deposit $10,000.00 Cash in Margin Account.
After the deposit, account values look like this:

Cash =	$10,000.00	
Securities Market Value =	$0.00	No positions held
Equity with Loan Value (ELV) =	$10,000.00	Total cash value + stock value + bond value + fund value + European & Asian options value
Initial Margin =	$0.00	IM = 25% * Stock Value
Maintenance Margin (MM) =	$0.00	MM = 25% * Stock Value
Available Funds =	$10,000.00	ELV - IM
Excess Liquidity =	$10,000.00	ELV - MM

Day 1: End of Day SMA Calculation

Reg T Margin =	$0.00	Reg T Margin = 50% * Stock Value
SMA =	$10,000.00	(Prior Day SMA +/- Change in Day's Cash +/- Today's Trades Reg T Initial Margin) or (Equity with Loan Value - Reg T Margin) whichever is greater
SMA >= 0	**SMA Requirement Satisfied, NO liquidation**	

Day 2: Customer BUYS 500 shares of XYZ stock at $40.00/share.
Total Amount = $20,000.00. After the trade, account values look like this:

Cash =	($10,000.00)	
Securities Market Value =	$20,000.00	
Equity with Loan Value =	$10,000.00	
Initial Margin =	$5,000.00	IM = 25% * Stock Value
Maintenance Margin =	$5,000.00	MM = 25% * Stock Value
Available Funds =	$5,000.00	ELV-IM **Available Funds were >=0 at the time of the trade, so the trade was submitted.**
Excess Liquidity =	$5,000.00	ELV - MM

Day 2: End of Day SMA Calculation

Reg T Margin =	$10,000.00	RegT Margin = 50% * Stock Value
SMA =	$0.00	($10,000.00 – $0.00 – $10,000.00) or ($10,000.00 – $10,000.00) Whichever is greater
SMA >= 0	**SMA Requirement Satisfied, NO liquidation**	

Day 3: First, the price of XYZ rises to 45.00/share.
Account values now look like this:

Cash =	($10,000.00)	
Securities Market Value =	$22,500.00	
Equity with Loan Value =	$12,500.00	
Initial Margin =	$5,625.00	IM = 25% * Stock Value
Maintenance Margin =	$5,625.00	MM = 25% * Stock Value
Available Funds =	$6,875.00	ELV-IM
Excess Liquidity =	$6,875.00	ELV - MM **Excess Liquidity >=0, so NO LIQUIDATION occurs.**

Day 3: Then the price of XYZ falls to $35.00/share.
Account values now look like this:

Cash =	($10,000.00)	
Securities Market Value =	$17,500.00	
Equity with Loan Value =	$7,500.00	
Initial Margin =	$4,375.00	IM = 25% * Stock Value
Maintenance Margin =	$4,375.00	MM = 25% * Stock Value
Available Funds =	$3,125.00	ELV-IM
Excess Liquidity =	$3,125.00	ELV - MM

Day 3: End of Day SMA Calculation

Reg T Margin =	$8,750.00	RegT Margin = 50% * Stock Value
SMA =	$0.00	($0.00 +/– $0.00 + $0.00) or ($7,500.00 – $8,750.00) Whichever is greater
SMA >= 0	**SMA Requirement Satisfied, NO liquidation**	

Day 4: Customer SELLS 500 shares of XYZ at $45.00/share.
Total Amount = $22,500.00. After the trade, account values look like this:

Cash =	$12,500.00	
Securities Market Value =	$0.00	Positions no longer held.
Equity with Loan Value =	$12,500.00	
Initial Margin =	$0.00	IM = 25% * Stock Value
Maintenance Margin =	$0.00	MM = 25% * Stock Value
Available Funds =	$12,500.00	ELV-IM
Excess Liquidity =	$12,500.00	ELV - MM

Day 4: End of Day SMA Calculation

Reg T Margin =	$0.00	RegT Margin = 50% * Stock Value
SMA =	$12,500.00	($0.00 +/– $0.00 + $11,250.00) or ($12,500.00 – $0.00) Whichever is greater
SMA >= 0	**SMA Requirement Satisfied, NO liquidation**	

Day 5: Customer attempts to BUY 500 shares of ABC stock at $101.00/share.
Total Amount = $50,500.00. Account values at the time of the attempted trade would look like this:

Cash =	$12,500.00	
Securities Market Value =	$0.00	
Equity with Loan Value =	$12,500.00	
Initial Margin =	$12,625.00	IM = 25% * Stock Value
Maintenance Margin =	$12,625.00	MM = 25% * Stock Value
Available Funds =	($125.00)	ELV-IM
Excess Liquidity =	($125.00)	ELV - MM
Available Funds <=0,	**so the trade is Rejected.**	

Day 5: Later on Day 5, the customer buys some stock.
Customer BUYS 300 shares of ABC stock at $100.00/share.
Total Amount = $30,000.00. After the trade, account values look like this:

Cash =	($17,500.00)	
Securities Market Value =	$30,000.00	
Equity with Loan Value =	$12,500.00	
Initial Margin =	$7,500.00	IM = 25% * Stock Value
Maintenance Margin =	$7,500.00	MM = 25% * Stock Value
Available Funds =	$5,000.00	ELV-IM
Excess Liquidity =	$5,000.00	ELV - MM

Day 5: End of Day SMA Calculation

Reg T Margin =	$15,000.00	RegT Margin = 50% * Stock Value
SMA =	-$2,500.00	($12,500 +/– $0.00 – $15,000.00) or ($12,500.00 – $15,000.00) Whichever is greater
SMA = ($2,500.00) which is < 0	**Shares are Liquidated.**	

Day 5: Consider an alternate Day 5 scenario in which the price of ABC stock drops.
Price of ABC stock drops to $75.00/share.
Account values would now look like this:

Cash =	($17,500.00)	
Securities Market Value =	$22,500.00	
Equity with Loan Value =	$5,000.00	
Initial Margin =	$5,625.00	IM = 25% * Stock Value
Maintenance Margin =	$5,625.00	MM = 25% * Stock Value
Available Funds =	($625.00)	ELV-IM
Excess Liquidity =	($625.00)	ELV - MM
Excess Liquidity < 0,	**so shares will be Liquidated.**	

Example: Commodities Margin Example

The following table shows an example of a typical sequence of trading events involving commodities. Although our Universal Account automatically transfers funds between the securities and commodities segments of the account, to simplify the following example, we will assume that the cash in the account remains in the Commodities segment of the account.

Action	Cash	Margin Requirement	Net Liquidation Value
1. Deposit $5,000.00	+ $5,000.00		$5,000.00
2 Buy 1 ES Futures Contract	$5,000.00	$2,813.00	$5,000.00
$850.00 * 50 (multiplier), ES Initial Margin Requirement = $2,813.00			
3. End of Day: ESprice goes to $860.00	$5,500.00	$2813.00	$5,500.00
Gained $10.00 * 50 = $500.00			
Net Liquidation Value > $2,813.00	**No Liquidation.**		
4. Next Day: ES price drops to $810.00	$3,000.00	$4,500.00	$3,000.00
Lost $50.00 * 50 = $2,500.00			
Net Liquidation Value < $4,500.00 Overnight Maintenance Margin	**Liquidation occurs.**		

Example: How to Determine the Last Stock Price Before We Begin to Liquidate the Position

For example, suppose a customer buys 2,000 shares of ABC stock at $10.00/share on margin. The loan amount in this case is $10,000.00, so the calculations would be: [1]

1. Customer deposits $10,000 in Reg T Margin account.

Cash =	$10,000.00	
Securities Market Value =	$0.00	
Equity with Loan Value =	$10,000.00	
Maintenance Margin =	$0.00	MM = 25% * Stock Value
Excess Liquidity =	$10,000.00	ELV - MM

2. Customer buys $20,000.00 of ABC stock (2,000 shares at $10.00/share)

Cash =	($10,000.00)	
Securities Market Value =	$20,000.00	
Equity with Loan Value =	$10,000.00	
Maintenance Margin =	$5,000.00	MM = 25% * Stock Value
Excess Liquidity =	$5,000.00	ELV - MM

3. The price of ABC begins to drop.
Determine the last stock price of ABC before we begin to liquidate the position:

Cash =	($10,000.00)	
Securities Market Value =	$13,333.33	
Equity with Loan Value =	$3,333.33	
Maintenance Margin =	$3,333.33	MM = 25% * Stock Value
Excess Liquidity =	$0.00	ELV - MM
Price =	($10,000 / 2,000) / (.75) = $6.6667[2]	

Example: How Much Stock Do We Liquidate?

In the following example, a customer buys stock, but then the price of the stock drops enough to bring the Excess Liquidity balance below zero, prompting liquidation.

1. Customer deposits $10,000 in Reg T Margin account.

Cash =	$10,000.00	
Securities Market Value =	$0.00	
Equity with Loan Value (ELV) =	$10,000.00	
Maintenance Margin (MM) =	$0.00	MM = 25% * Stock Value
Excess Liquidity =	$10,000.00	ELV - MM

2. Customer buys $20,000.00 of ABC stock (2,000 shares at $10.00/share)

Cash =	($10,000.00)	
Securities Market Value =	$20,000.00	
Equity with Loan Value =	$10,000.00	
Maintenance Margin =	$5,000.00	MM = 25% * Stock Value
Excess Liquidity =	$5,000.00	ELV - MM

3. The price of ABC drops to $6.00/share

Cash =	($10,000.00)	
Securities Market Value =	$12,000.00	
Equity with Loan Value =	$2,000.00	
Maintenance Margin =	$3,000.00	MM = 25% * Stock Value
Excess Liquidity =	-$1,000.00	ELV - MM
Excess Liquidity is now < 0, so positions will be liquidated to bring Excess Liquidity back to at least zero.		

4. Determine the liquidation amount using the calculation listed above:

Liquidation Amount =	$1,000.00 * 4
	$4,000.00

5. After liquidation, the customer's account balances look like this:

Cash =	($6,000.00)	Original $10,000.00 loan – Liquidation Amount
Securities Market Value =	$8,000.00	$12,000.00 Market Value – Liquidation Amount
Equity with Loan Value =	$2,000.00	
Maintenance Margin =	$2,000.00	MM = 25% * Stock Value
Excess Liquidity	$0.00	ELV - MM
Note that this ONLY brings the Excess Liquidity balance back to zero. Depositing more than this amount will provide the ability to open additional positions and/or a cushion to prevent further liquidation.		

1. The example uses Initial and Maintenance Margins of 25%. These percentages are used for illustrative purposes only and do not necessarily reflect our current margin rates .
2. Using a margin requirement of 25%, the account would become subject to liquidation at a price of (Cash Borrowed / # of Shares) / (1 – margin rate). Using the values in the above example, the account would become subject to liquidation when the price falls to (10,000 / 2,000) / (1 - .25), or $6.6667.