



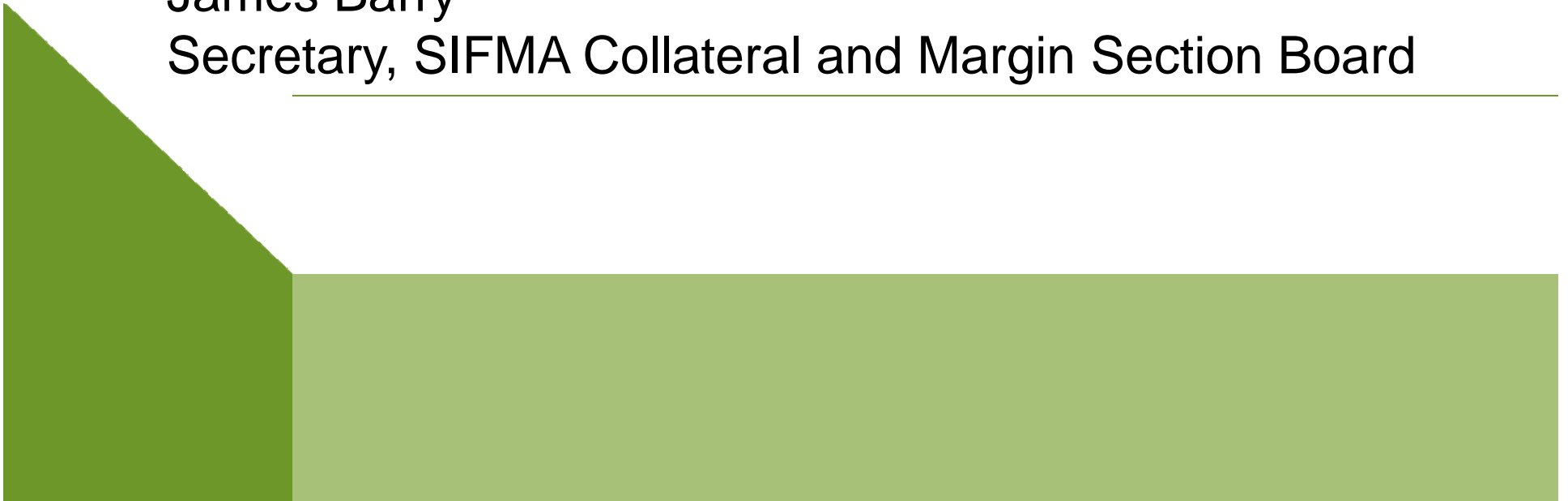
---

# PORTFOLIO MARGIN

---

James Barry  
Secretary, SIFMA Collateral and Margin Section Board

---



## FINRA Rule 4210 (Reg T/Strategy Margin vs. Portfolio Margin)

- What is FINRA Rule 4210?
  - The rule works in conjunction with Regulation T to limit the amount of credit (margin) a Broker/Dealer can extend to a customer
  - Generally:
    - Long equities have a 25% requirement
    - Short equities have a 30% requirement
    - Long options have a 100% requirement
    - Short US listed equity options have a 20% (15% for broad-based indexes) of the notional underlier requirement with an out-of-money adjustment
    - Various option strategies are recognized under the rule for reduced margin
      - Covered calls and puts
      - Spreads
      - Short Straddles

## FINRA Rule 4210 (Reg T/Strategy Margin vs. Portfolio Margin)

- Why not portfolio margin
  - Generally lower margin requirements means more risk management oversight by the firm, broker and customer
  - Clients must be able to trade in uncovered short options except in very limited circumstances
  - Significantly higher minimum account equity requirements
  - Much shorter timeframes to meet margin calls
  - Reduced transparency into the margin calculation

## FINRA Rule 4210 (Reg T/Strategy Margin vs. Portfolio Margin)

- Comparison of Reg T/Strategy vs Portfolio Margin

	Reg T/Strategy	PM
Minimum Account Equity	\$2,000	\$100,000
Time to meet Initial Margin Calls	5 Days + poss. ext.	No initial margin
Time to meet maintenance margin calls	15 Days	3 Days
Time before unmet maint. calls incur capital charge	5 Days	1 Day
Must be approved for uncovered options	No	Yes
Initial margin requirement on stocks	50%	15%
Maintenance margin requirement on stocks	25% Long/30% Short	15%
Loan value on listed options	Only over 9 months to exp.	Based on TIMS
Offsets for long stock/long put	Not for initial req.	Based on TIMS
Lower req for index ETFs	No	Yes
Offsets for long index/short index	No	Yes
Offsets for long stocks/short stocks	No	No

## FINRA Rule 4210 (Reg T/Strategy Margin vs. Portfolio Margin)

- Why portfolio margin
  - Generally lower margin requirements
  - The strategy section of the rule treats all positions in all accounts equally.
  - An account with one position gets the same requirement percentage as one with many positions
  - Under the strategy rules, risk reducing transactions can increase margin requirements
    - Buying a put to hedge a long stock requires the account to pay for the put in full and the 50% Regulation T initial requirement remains on the stock
    - Selling an index ETF to cover and another long index ETF
  - Potential loan value on long options

## FINRA Rule 4210 (Reg T/Strategy Margin vs. Portfolio Margin)

- The Portfolio Margin Rule
  - Apply stress tests or slides by using mathematical formulas to create new market values for positions in an account based on theoretical movements of the underlying stock
  - The revaluation methodology is explicitly part the rule
  - The key feature involves moving the price of the underlier by between +6% and -8% at 10 equal intervals for broad-based indexes and their options and by between +15% and -15% for equities, narrow-based indexes and their options.
  - Minimum requirement of \$0.375 per option contract underlier
  - The actual model to be used to revalue the options is not specified in the rule but..
  - B/Ds must use an SEC/FINRA approved model
  - Currently, the Option Clearing Corporation's TIMS is the only approved model

## FINRA Rule 4210 (Reg T/Strategy Margin vs. Portfolio Margin)

- Product Types Covered by the Portfolio Margin Calculation
- Equities (US equities and non-US equities that have a “ready market”)
- Convertible Bonds (Must convert into margin stock)
- US Listed Options
- Equity Swaps
- Single Stock Futures
- Narrow-based Stock Index Futures
- OTC Options on Equities
- OTC Option cleared through the OCC
- \*\*Covering Foreign Listed Options on eligible Equities is currently under development by The OCC

## FINRA Rule 4210 (Reg T/Strategy Margin vs. Portfolio Margin)

- Challenges

- Dodd Frank Act Section 983 removed legal uncertainty with regards to SIPC coverage of futures positions in a portfolio margin account
- CFTC has not created rule enabling futures to be included in the portfolio margin account
  - Major constraint is clearing house margin
  - “one pot” or two pot” approach
  - Potentially the customer could have lower margin than the B-D/FCM clearing the positions.
    - Long SPY vs short SPX future would require significantly less margin than the CME would require on a standalone SPX future
- All of the positions in the Portfolio Margin account must be on the books of the same broker/dealer and FCM
- TIMS was developed to cover US equities and standardized options
  - Adding specific option identifiers to TIMS (in development)
  - Expanding TIMS to cover volatility stresses
  - Adding OTC Options that clear through the OCC



## How Portfolio Margin Works

- Below is an example of the PM calculation for XYZ Corp
  - Strategy margin requirement: 89,910,160
  - Portfolio margin requirement: 28,288,960

### These are the results of the slides from +3 to +15% at 3% intervals

Position	Quantity	Market Value	Down 15%	Down 12%	Down 9%	Down 6%	Down 3%
Eqty XYZ Corp	(210,300)	(13,319,500)	1,791,335	1,433,195	1,074,843	716,492	358,351
Put XYZ 100 @ 60 11/17/2012	(700)	(273,000)	(578,971)	(459,712)	(340,453)	(221,208)	(104,838)
Call XYZ 100 @ 65 11/17/2012	3,027	45,405	(21,225)	(21,192)	(20,986)	(20,018)	(16,410)
Put XYZ 100 @ 65 11/17/2012	(4,375)	(3,696,875)	(3,710,687)	(2,965,318)	(2,219,950)	(1,474,580)	(729,369)
Call XYZ 100 @ 70 11/17/2012	(1,750)	(8,750)	740	740	739	726	653
Put XYZ 100 @ 70 11/17/2012	(883)	(1,156,730)	(750,631)	(600,194)	(449,757)	(299,321)	(148,884)
Call XYZ 100 @ 60 12/22/2012	438	61,320	(59,249)	(55,810)	(49,582)	(39,287)	(23,613)
Call XYZ 100 @ 65 12/22/2012	(875)	(35,000)	28,384	27,654	25,876	22,031	14,530
Call XYZ 100 @ 60 01/19/2013	1,750	323,750	(320,196)	(291,277)	(247,560)	(186,184)	(105,352)
Call XYZ 100 @ 65 01/19/2013	(3,500)	(236,250)	242,588	228,018	202,216	160,408	97,864
			(3,377,912)	(2,703,896)	(2,024,614)	(1,340,941)	(657,068)

### These are the results of the slides from -15 to -3% at 3% intervals

Position	Quantity	Market Value	Up 3%	Up 6%	Up 9%	Up 12%	Up 15%
Eqty XYZ Corp	(210,300)	(13,319,500)	(358,351)	(716,492)	(1,074,843)	(1,433,195)	(1,791,335)
Put XYZ 100 @ 60 11/17/2012	(700)	(273,000)	92,961	160,059	202,908	226,181	236,739
Call XYZ 100 @ 65 11/17/2012	3,027	45,405	21,895	80,004	186,228	356,575	600,539
Put XYZ 100 @ 65 11/17/2012	(4,375)	(3,696,875)	714,132	1,376,563	1,971,550	2,465,374	2,858,543
Call XYZ 100 @ 70 11/17/2012	(1,750)	(8,750)	(910)	(4,655)	(14,291)	(35,527)	(76,265)
Put XYZ 100 @ 70 11/17/2012	(883)	(1,156,730)	148,190	291,778	429,421	558,573	676,653
Call XYZ 100 @ 60 12/22/2012	438	61,320	27,903	64,643	108,493	158,836	214,944
Call XYZ 100 @ 65 12/22/2012	(875)	(35,000)	(20,437)	(53,001)	(98,585)	(158,475)	(232,961)
Call XYZ 100 @ 60 01/19/2013	1,750	323,750	127,402	282,688	457,441	655,326	876,722
Call XYZ 100 @ 65 01/19/2013	(3,500)	(236,250)	(129,374)	(302,106)	(513,460)	(775,408)	(1,092,134)
			623,411	1,179,481	1,654,862	2,018,260	2,271,445

# How Portfolio Margin Works

Below is an example of the PM calculation for long Russell 2000 ETF and short S&P500 ETF.

The slides differ for the broad-base and narrow-based indexes.

Balanced Long/Short Index ETFs											
Portfolio Group: USIDX											
Summary											
Margin Req:	(7,743.00)	<i>This is the worst case (largest negative number) from the Offset row below.</i>									
Offset:	50%	<i>This is amount by which gains can offset (reduce) losses.</i>									
Class Group	Dn5	Dn4	Dn3	Dn2	Dn1	Up1	Up2	Up3	Up4	Up5	
<b>Narrow Index</b>	-10%	-8%	-6%	-4%	-2%	2%	4%	6%	8%	10%	
<b>Broad Index</b>	-8.0%	-6.4%	-4.8%	-3.2%	-1.6%	1.2%	2.4%	3.6%	4.8%	6.0%	
Russell 2000	129,058	(12,906)	(10,325)	(7,743)	(5,162)	(2,581)	2,581	5,162	7,743	10,325	12,906
S&P 500	(129,070)	10,326	8,260	6,195	4,130	2,065	(1,549)	(3,098)	(4,647)	(6,195)	(7,744)
<i>Long MV above is positive and Short MV is negative.</i>											
Gains	10,326	8,260	6,195	4,130	2,065	2,581	5,162	7,743	10,325	12,906	
Gain Offset	5,163	4,130	3,098	2,065	1,033	1,291	2,581	3,872	5,162	6,453	
Losses	(12,906)	(10,325)	(7,743)	(5,162)	(2,581)	(1,549)	(3,098)	(4,647)	(6,195)	(7,744)	
Offset:	(7,743)	(6,194)	(4,646)	(3,097)	(1,549)	(258)	(517)	(775)	(1,033)	(1,291)	
Gross MV	258,128	<i>This is the absolute value of the longs + the absolute value of the shorts</i>									

# Portfolio Margin Statistics\*

- Industry wide information on Portfolio Margin
  - Totals as of yearend 2011

PM Customers	Correspondents	Total TIMS Req	Total Gross Debit	Total Gross SMV
17,673	105	\$106,715,282,507	\$177,201,736,381	\$308,344,902,389

- Key numbers since inception of PM (SMV tracking started in August 2010)

High # of PM Customers	17,673	4th QTR 2011
Low # of PM Customers	2,743	4th QTR 2007

High Total TIMS Requirement	\$128,398,424,822	1st QTR 2011
Low Total TIMS Requirement	\$48,064,147,337	4th QTR 2007

High Aggregate Gross Debit Balance	\$252,182,384,496	1st QTR 2011
Low Aggregate Gross Debit Balance	\$92,396,126,372	1st QTR 2009

High Total Gross Short Market Value	\$327,019,845,315	2nd QTR 2011
Low Total Gross Short Market Value	\$272,604,434,390	3rd QTR 2010

\*Courtesy of FINRA

## Resources

- FINRA Rule 4210
  - [http://finra.complinet.com/en/display/display\\_main.html?rbid=2403&element\\_id=9383](http://finra.complinet.com/en/display/display_main.html?rbid=2403&element_id=9383)
- The OCC Customer Portfolio Margin Calculator
  - <http://www.theocc.com/risk-management/cpm/>
- Portfolio Margin FAQs
  - <http://www.finra.org/Industry/Regulation/Guidance/P038849>