MEMORANDUM

To: Use of Derivatives by Registered Investment Companies and Business Development Companies Proposal File

From: Jamie Lynn Walter
Senior Counsel, Division of Investment Management

Date: March 23, 2016

Re: Meeting with Representatives of PIMCO

On March 17, 2016, Diane Blizzard (Associate Director, Division of Investment Management ("IM")), Dan Townley (Attorney Fellow, IM), Michael Spratt (Assistant Director, IM), Brian McLaughlin Johnson (Senior Special Counsel, IM), Christopher Stavrakos (Senior Financial Analyst, IM), Thoreau Bartmann (Branch Chief, IM), Jamie Lynn Walter (Senior Counsel, IM), Adam Bolter (Senior Counsel, IM), Sirimal Mukerjee (Senior Counsel, IM), Amy Miller (Senior Counsel, IM), John Cook (Senior Special Counsel, Division of Economic and Risk Analysis ("DERA")) and Jae Hyun Choe (Economist, DERA) met with David Flattum, Kevin Broadwater, Steve King, William De Leon, and Scott Mather from PIMCO. The participants discussed the Commission's proposal on the use of derivatives by registered investment companies and business development companies. Information provided by PIMCO in connection with this meeting is set forth in Annex A.

Annex A

Notional value is not a good representation of fixed income risk, but adjusted notional is

- If a portfolio manager were trying to construct a portfolio with 20 years of duration, she could use a wide range of fixed income derivatives to do so, including futures or interest rate swaps.
- While the resulting portfolios would have the same interest rate sensitivity (or duration) under all scenarios, the notional values of the derivatives exposure would be very different depending on the type of derivative used.
- However, if notional values were *adjusted*, the resulting adjusted notional would reflect risk more accurately.

Same risk profile but different notional values ↓ ↓

Illustrative example <u>without</u> duration adjustment to notional

Instrument	Contract size	Price	Duration	# of contracts	Total notional	Total duration
Eurodollar Future	$ 1,000,000	$100	0.25 yr	80	$ 80,000,000	20 yr
2 Year Interest Rate Swap	$ 1,000,000	$100	2 yr	10	$ 10,000,000	20 yr
5 Year Treasury Bond Future	$ 100,000	$100	4 yr	50	$ 5,000,000	20 yr
10 Year Interest Rate Swap	$ 1,000,000	$100	9.3 yr	2.15	$ 2,150,000	20 yr
30 Year Treasury Bond Future	$ 100,000	$100	20 yr	10	$ 1,000,000	20 yr

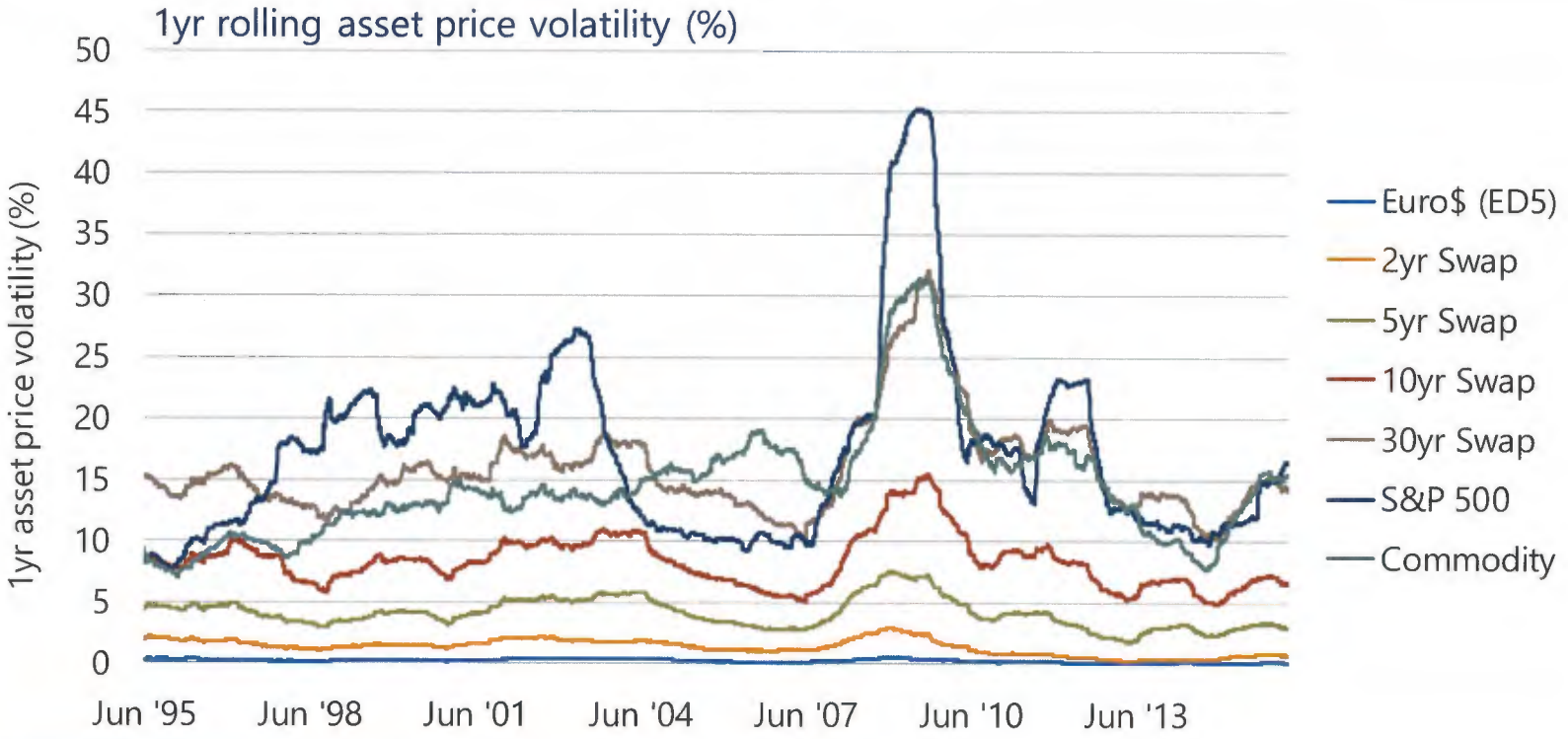
Same risk profile and same adjusted notional values ↓ ↓

Illustrative example <u>with</u> duration adjustment to notional

Instrument	Contract size	Price	Duration	# of contracts	Total notional	Duration adjustment	Total notional with adjustment*	Total duration
Eurodollar Future	$ 1,000,000	$100	0.25 yr	80	$ 80,000,000	0.25/20	$ 1,000,000	20 yr
2 Year Interest Rate Swap	$ 1,000,000	$100	2 yr	10	$ 10,000,000	2/20	$ 1,000,000	20 yr
5 Year Treasury Bond Future	$ 100,000	$100	4 yr	50	$ 5,000,000	4/20	$ 1,000,000	20 yr
10 Year Interest Rate Swap	$ 1,000,000	$100	9.3 yr	2.15	$ 2,150,000	9.3/20	$ 1,000,000	20 yr
30 Year Treasury Bond Future	$ 100,000	$100	20 yr	10	$ 1,000,000	20/20	$ 1,000,000	20 yr

* Adjusted notional = total notional value x (the duration of the contract/duration of the 30 year Treasury contract)

A 30 Year Treasury has similar volatility to equities and commodities and is a good benchmark for duration adjustment



Annualized Volatility (%)	1995-Present	Past 10yr	Past 1 yr
Euro$ (ED5)	0.3	0.3	0.2
2yr Swap	1.5	1.3	0.8
5yr Swap	4.3	4.1	2.9
10yr Swap	8.6	8.6	6.6
30yr Swap	16.4	17.7	14.3
S&P 500	19.0	20.5	16.5
Commodity	15.5	17.7	15.4