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Derivatives Exposure under Rule 18f-4: Notional Apples and Oranges

Having provided two "[big pictures](#)" of the calculation of a fund's "derivatives exposure," we resume with an in-depth examination. We begin by considering how to determine the "gross notional amount" of a derivatives transaction. This post may contain our only categorical conclusion regarding derivatives exposure: **gross notional amounts must be absolute values expressed in U.S. dollars.**

Absolute Values

With a limited exception that we will explain in a subsequent post, a fund cannot net the notional amounts of short positions against the notional amounts of long positions in the same underlying asset when calculating its derivatives exposure. In other words:

[a fund's derivatives exposure must include the sum of the absolute values of the notional amounts of the fund's derivatives transactions, rather than a figure based on calculations that net long and short positions.](#)

This means that none of the numbers on the right side of the [derivatives exposure equation](#) will be negative.

Middle School Math

As we learned in middle school (or maybe earlier), an equation cannot be true unless it has the same units on each side. For example:

One apple ? Two oranges.

We can fix this by multiplying each side by the same units. So, if an apple weighs 100 grams and an orange weighs 50 grams, we can say one apple weighs as much as two oranges.

100 grams x one apple = 50 grams x two oranges

The left side of the derivatives exposure equation is 10% of a fund's net assets. Net assets are expressed in dollars, which means the right side of the equation (which adds up all the adjusted gross notional amounts of derivatives transactions) must be in dollars as well.

What Is the Problem?

Some derivatives transactions (particularly swaps) are expressed in dollars, so their notional amounts will already use the right units. But other derivatives transactions (particularly futures contracts and options) are contracts for a specified amount of the underlying asset. For example:

- A stock option or future will be for so many shares.
- The standard futures contract for [West Texas Intermediate Light Sweet Crude Oil](#) is for 1000 barrels.
- A deliverable currency forward will be for an amount of foreign currency, and 1 million yen is not more in dollar terms than 10,000 euros.

To transform these contracts into dollars, we will need to multiply the underlying assets by a price (or exchange rate in the case of a foreign currency). So, which price we use is an essential aspect of any definition of a derivatives transaction's "gross notional amount."

Which Price Is Right?

There will generally be three prices to choose from: (1) the current market price of the underlying asset, (2) the market price of the underlying asset at the time a fund enters into the derivatives transaction, and (3) the contract price of the derivatives transaction. For example, if a fund buys a [Globex Euro FX Future](#) for August 2021 delivery at a price of \$1.2271, this would be the contract price of the future. The market price of the underlying euros at the time the future was purchased would be \$1.225, while the current market price would change from moment to moment until the future is closed out. Our next post will provide the best answer we could find to this question based on guidance from the SEC. After trying to explain the other elements of the derivatives exposure equation, we will return to consider whether this is a sensible approach to identifying a limited derivatives user.

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