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Derivatives: Tools for Risk Management and Portfolio Efficiency

How mutual funds and ETFs use derivatives to help control risk and seek optimized returns.

The scars of the Global Financial Crisis (GFC) still run deep, especially when it comes to the use of derivatives in mutual funds and ETFs. These instruments are often grouped together with subprime lending as the root cause for the market crash in 2008.

While exposure to collateralized debt obligations (CDOs)[1] and credit default swaps (CDS)[2] certainly contributed to the GFC, the real issue lay in their misuse and inadequate risk management—not in any inherent flaws in the instruments themselves.

In mutual funds and exchange-traded funds (ETFs), derivatives are typically used for risk mitigation rather than for speculative leverage trades. When used by knowledgeable asset managers with clear objectives and proper implementation, these strategies are used to help protect capital as much as they are used to enhance returns.

A financial derivative is a contract between two or more parties whose value is based on (or "derived from") the value of an underlying asset, index, or rate. Two parties enter into an agreement to exchange money based on the changes in the value of the underlying asset. This asset could be a stock, bond, corporation, interest rate, commodity, or currency. And yes, while a market for "exotic" derivatives such as weather or catastrophes exists, these are tiny markets that one wouldn't likely find in most traditional mutual funds and ETFs.

Common Types of Derivatives:

1. **Futures** – Contracts to buy or sell an asset at a predetermined future date and price
2. **Options** – Give the holder the right (but not the obligation) to buy or sell an asset at a specific price before a certain date
3. **Swaps** – Agreements to exchange cash flows or other financial instruments (e.g., interest-rate swaps)
4. **Forwards** – Similar to futures but customized and traded over-the-counter (OTC)

Insight from Hartford Funds

Joe Boyle, CFA, CPA
Fixed Income Product Manager, Hartford Funds

Key Points

- Derivatives, when used thoughtfully, can help mutual funds and ETFs manage risk and maintain portfolio stability.
- Regulatory reforms and strong oversight help ensure derivatives are used responsibly, helping to protect investors from excessive risk.
- Skilled fund managers use derivatives to enhance efficiency, reduce costs, and help safeguard investor capital during periods of market stress.

Common Derivative Instruments*

Instrument	Purpose	How It's Traded
Interest Rate Futures	Duration[4] Management	Exchange Traded
Interest Rate Swaps	Duration Management	OTC
Credit Default Index (CDX)[3]	Broad Credit Exposure Management	OTC
Credit Default Swaps (CDS)	Single Name Credit Exposure	OTC
Equity Futures	Hedge/Add Equity Exposure	Exchange Traded
Index Options	Capital Preservation or Income Generation	Primarily Exchange Traded
Currency Forwards	Hedging Foreign-Exchange Risk	OTC

* SEC rules impose certain limitations and restrictions on the level of mutual-fund and ETF exposure to derivatives. Source: Hartford Funds

Derivative Uses

Risk Management

The chief benefit of derivatives is risk mitigation—especially within fixed-income portfolios. Interest rates and credit spreads pose the biggest risk to bondholders. In the short term, large swings in interest-rate movements and credit spreads can negatively impact the value of bonds that are in no danger of default. Portfolio managers often use a myriad of instruments, such as futures, swaps, and options, to help soften interest-rate fluctuations, as well as credit derivatives (CDS & CDX)[1] to protect against short, but impactful, risk-off market moves.

Additionally, many investment opportunities exist outside the US, but currency markets are often volatile. Currency futures can hedge foreign-exchange exposure, thereby removing some of the noise from the investment's original purpose.

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Cost & Efficiency

Derivatives can enhance liquidity and flexibility in fund management. From time to time, sectors may appear attractive due to sharp market moves, while bonds providing exposure to those sectors might be scarce. Instead of potentially overpaying, a manager might use a credit-default index to quickly adjust market exposure at a lower cost. This can be especially useful during periods of market volatility or when managing cash flows from investor redemptions. This is by no means free: Holding positions incurs costs through margin requirements and transaction fees, so fund managers must employ these contracts prudently. Nevertheless, by using derivatives strategically, especially during periods of market stress, funds can help maintain performance consistency and reduce transaction costs.

Regulation

The GFC shed light on derivatives and their misuse. Following that period of chaos, regulators implemented measures to address the risks posed by the overexposure and leverage these instruments can introduce. Reforms such as Dodd-Frank and Basel III created guardrails around which entities can trade certain instruments, how parties must collateralize, the use of margin positions, and more robust transparency around reporting requirements.

Moreover, mutual funds and ETFs are governed by strict regulatory frameworks. In October 2020, the SEC adopted Rule 18f-4 to further regulate the use of derivatives and other transactions involving leverage by registered open-end funds. Under this rule, funds must:

- Adopt a written program to manage derivatives risks;
- Designate a Derivatives Risk Manager approved by the board; and
- Include stress testing, back testing, and breach reporting.

Additionally, fund disclosures, including those found in prospectuses and fact sheets, must detail how derivatives are used, to help investors make informed decisions.

Strong Hands

Finally, much like a musical instrument that's only as good as the person playing it, the investor using the derivatives, and their intent, matter much more than the derivative itself. The idea of "strong hands" refers to sophisticated investors or institutions that hold assets with conviction, maintain long-term investment horizons, and possess deep capital reserves. Mutual fund and ETF managers, in addition to being highly regulated, typically understand what an overleveraged or overexposed position can do to their reputation if they're caught offside.

For example, a core bond manager could be subject to significant outflows if drawdowns vs. peers are more significant due to excessive derivative risk. Ironically, the lack of derivative usage for risk mitigation might make the manager appear unsophisticated if they could have protected capital better during a risk-off event.

Professional fund managers generally use sophisticated risk models and oversight to help ensure derivatives serve their intended purpose. They would be wise to keep the words of Warren Buffett top of mind: "It takes 20 years to build a reputation and five minutes to ruin it."

Conclusion

When used appropriately, derivatives may not a source of undue risk—they can serve as tools for mitigating risk and enhancing portfolio efficiency, ultimately aiming to protect investor capital. In the aftermath of the GFC, heightened scrutiny reshaped the derivatives market, compelling end users to adopt stronger risk-measurement practices and greater transparency. Today, sophisticated investors—focused on long-term goals and mindful of their reputations—approach derivatives with discipline. They understand that excessive leverage can erode credibility as prudent stewards of capital. Thoughtfully applied, derivatives remain an essential component of the investing landscape, offering meaningful benefits to those who use them wisely.

To learn more about the value of prudent risk management, please talk to your financial professional.

[1] A collateralized debt obligation (CDO) pools together various types of debt, such as loans or bonds, and repackages them into tranches that are sold to investors. CDO tranches offer diversified investment opportunities with a different level of risk and return for each tranche, allowing investors to choose the exposure that best fits their strategy. Senior tranches are the least risky.

[2] A credit default swap (CDS) is an insurance-like contract where one party (the buyer) pays a periodic fee to another party (the seller) for protection against the default of a specific borrower (the reference entity).

[3] A credit default swap index (CDX) bundles dozens or hundreds of individual CDS contracts into one security instead of buying protection on a single company.

[4] Duration is a measure of the sensitivity of an investment's price to nominal interest-rate movement.

Important Risks: Investing involves risk, including the possible loss of principal. • Fixed-income security risks include credit, liquidity, call, duration, event and interest-rate risk. As interest rates rise, bond prices generally fall. • Derivatives are generally more volatile and sensitive to changes in market or economic conditions than other securities; their risks include currency, leverage, liquidity, index, pricing, regulatory and counterparty risk. • Foreign investments may be more volatile and less liquid than U.S. investments and are subject to the risk of currency fluctuations and adverse political, economic and regulatory developments. • Investments in the commodities market may increase the Fund's liquidity risk, volatility and risk of loss if adverse developments occur. Investments linked to prices of commodities may be considered speculative.