

between two parties, either over-the-counter or on an exchange. Some derivatives are custom-tailored, while others are standardized. A short list of common derivative instruments includes:

- Options
- Forwards
- Futures
- Swaps
- Credit default swaps
- Caps and floors
- Collars
- Warrants

For the U.S. insurance industry, there are three basic allowed uses for derivatives under the various state investment laws, though most also allow a small basket for other uses. The three primary uses are:

1. Hedging—managing or reducing risk;
2. Replication—to reproduce the investment characteristics of otherwise permissible investments assets, and;
3. Income generation—sale of a derivative to generate additional income.

The primary use is *hedging* of a risk, on either the asset side or the liability side of the balance sheet. Examples of risks that are hedged by insurance companies are interest rate risk, credit risk, currency risk and equity-related risk (related to variable annuities, for example).

Types of Derivatives

Forwards

A forward is an agreement for the future delivery of a specific quantity of an asset at a specified price, at a designated time. Although payment and delivery are made in the future, the price is determined on the initial trade date. Forwards can be customized to meet the specific needs of the parties and are bilateral contracts that trade over-the-counter. Examples include foreign currency forwards and interest rate forwards.

Futures

A futures contract is an agreement to buy or sell, in the future, a specific quantity of an asset at a specific price at a designated time. It is a standardized agreement (so terms cannot be customized) that can be closed or terminated prior to expiration. Futures are similar to forwards, but they are standardized and trade on an exchange. They are, therefore, subject to margin (a deposit of cash or other collateral) and other requirements of the exchange, but because they are standardized and exchange-traded, they possess greater liquidity and transparency than forwards. Examples of typical assets underlying futures contracts include commodities, foreign currencies, interest rates and stock indices.

Swaps

A swap is an agreement in which counterparties agree to exchange future streams of cash flows over a set period of time. The cash flows are calculated based on a notional amount. Typically, the only dollars that are exchanged between the parties are the cash flows, not the notional amount—except for currency swaps, where the notional principal is also exchanged. Certain “plain-vanilla” (commonplace) swaps now are standardized and trade on exchanges, while others are over-the-counter contracts negotiated between parties. Swaps are primarily used to mitigate or add exposure to certain risks such

as interest rate risk—

Option Type	Description
Call	Gives the buyer the right to buy the designated instrument from the writer.

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A replication (synthetic asset) transaction (RSAT) is a derivative transaction that is entered into in conjunction with other instruments in order to reproduce the investment characteristics of an otherwise permissible investment. The idea is to allow insurance companies to use derivatives to synthetically create assets that are generally permitted, but where the specific exposure desired does not exist in the marketplace or is not readily available at an attractive price. For example, an investor might want exposure to a corporate credit issuer that does not have bonds outstanding, but borrows in the bank loan market. The investor can write a CDS contract (sell credit protection) and combine it with (typically) a risk-free or highly rated fixed income security (a host bond) so that the cash flows replicate that of a bond that might be issued by the desired credit. For insurers, the key is that there has to be a cash instrument linked to the derivative; replication transactions involving *naked*, or unattached, derivative instruments are not allowed.

Income generation refers to a derivative transaction that is entered into to generate additional income. Typically this involves writing an option, which exposes the writer to potential future liabilities in exchange for the upfront premium (the income). Because of this risk, insurance companies are required to own the underlying asset so that it can be used to satisfy the potential obligation. For example, an insurer can write an equity call option on a stock that it already owns (i.e., the covered call transaction described earlier).

Key Terminology

Call Option

A contract that gives the buyer the right to buy a specified asset from the seller

Caps and Floors

Contracts used to hedge against fluctuations in the underlying asset

Collar

An options strategy designed to protect investors against large losses, but also limits gains

Counterparty

An entity that participates in a financial transaction which results in exposure to financial risk

Credit Default Swap (CDS) - a financial instrument that provides insurance against the credit risk of a borrower

Bilateral contracts that are negotiated and