The Role of Collateral in Risk Management

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Agenda

- The Importance of Collateral
- How Collateral Mitigates Risk
- Credit Department Risk Analysis

The Importance of Collateral

- Primary objectives:
  - Permits dealings with less creditworthy customers
  - Increases business with more creditworthy customers
- Overall result:
  - Firm’s profit making potential is enhanced

Goldman Sachs' Balance Sheet

- 1999 financials tell much of the story:
  - Customer and counterparty receivables (includes margin lending) $30.1B
  - Securities loaned 9.2B
  - Securities purchased via repo* 37.1B
  - OTC derivatives-related collateral 6.6B

* Repo transactions (which involve the purchase and agreement to resell securities) do not involve collateral but provide some similar risk mitigation benefits.

Goldman Sachs' Income Statement

- 1999 net revenues of $13.3B include:
  - Fixed Income, Currencies & Commodities Trading $ 2.9B
  - Equities Trading 2.0B

  $ 4.9B
- Our willingness to accept collateral from customers is one driver of the firm's revenue generation capability

The Product Perspective

- Fixed Income
  - Repos*, securities lending, swaps, options and futures
- Currencies
  - Forward contracts, swaps, options and futures
- Commodities
  - Forward contracts, swaps, options and futures
- Equities
  - Margin lending, stock lending, derivatives, options and futures

* Repo transactions (which involve the purchase and agreement to resell securities) do not involve collateral but provide some similar risk mitigation benefits.

How Collateral Mitigates Risk

- Margining methods:
  - Variation Margin: Marking-to-market and the resulting collateral call reduces and often eliminates existing unsecured credit risk
  - Initial Margin: For some customers, an additional cushion of collateral is taken upfront to protect against any potential future mark-to-market exposure

Credit Department Risk Analysis

- Three specific risks:
  - Credit risk: how much unsecured credit exposure is acceptable for a customer?
  - Collateral risk: what is the likelihood that the collateral will decrease in value or will not be easily marketable?
  - Legal risk: is there a risk of delay on a sale of the collateral or a risk of challenge on the rights to collateral?