Risk Management at Morgan Stanley
An Overview

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February 14, 2006
The information provided herein may include certain non-GAAP financial measures. The reconciliation of such measures to the comparable GAAP figures are included in the Company’s Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on 8-K, including any amendments thereto, which are available on www.morganstanley.com.

This presentation may contain forward-looking statements. You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date on which they are made, which reflect management’s current estimates, projections, expectations or beliefs and which are subject to risks and uncertainties that may cause actual results to differ materially. For a discussion of risks and uncertainties that may affect the future results of the Company, please see “Forward-Looking Statements” immediately preceding Part I, Item 1, “Competition” and “Regulation” in Part I, Item 1, “Risk Factors” in Part I, Item 1A and “Certain Factors Affecting Results of Operations” in Part II, Item 7 of the Company’s Annual Report on Form 10-K for the fiscal year ended November 30, 2005.
Risk Oversight Framework: Control Groups

Risk Committees are established at the Firm and business levels. These committees periodically perform comprehensive reviews of the risk profiles of their businesses and the Firm.

- **Credit Department**
  - Credit Risk from Lending
  - Counterparty Credit Risk
  - Settlement Risk

- **Credit Risk**
  - Operating Risk
  - Market Risk

- **Credit Department**
  - Credit Risk from Lending

- **Credit Risk**
  - Counterparty Credit Risk

- **Credit Risk**
  - Settlement Risk

- **Operations, Controllers, IT, Tax Dept., Facilities, Human Resources**
  - Transaction Risk
  - System Risk
  - Operation Control Risk
  - Taxation Risk
  - Disaster Risk
  - People Risk

- **Operating Risk**
  - Funding Risk

- **Risk Committees**
  - Legal Risk

- **Market Risk Department**
  - Equity Risk
  - Correlation Risk
  - Interest Rate Risk
  - Currency Risk
  - Commodity Risk
  - Market Liquidity Risk

- **Law, Compliance, Government Affairs**
  - Enforceability Risk
  - Regulatory Risk
  - Legislation Risk

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Guiding Principles for Risk Management

- Risk-taking is an integral part of financial intermediation
- Effectively managing the risk associated with a business is a critical and intrinsic responsibility of management
- The objectives are for risk-taking to be
  - Active (not passive)
  - Prudent (e.g., no franchise bets)
  - Balanced across asset classes, type, businesses, etc., and
  - Commensurate with rewards and Firm’s risk appetite
- “Doctrine of No Surprises”: Risk management processes are designed to ensure senior management has the information required to achieve these objectives
- To be effective, control groups (e.g., market risk managers, credit officers and infrastructure) must have credibility and access to senior management
- Effective risk management requires an integrated approach that spans all of the risks to which the firm is exposed. Segmented, partial approaches are less effective
Communicating and Measuring Risk

- No one summary measure or sufficient statistic exists for any category of risk => adopt multiple measures to highlight risk profile
- Risk monitoring and measurement: Identify changes in risk profile
  - Review positions and changes in risk profile
  - Measure exposure sensitivity to changing market conditions
    - Position / risk sensitivity reports. Identify and quantify risk concentrations
    - VaR
    - Scenario Analyses and Stress Tests
    - P&L / Risk
    - Current and Potential Exposure
    - Risk Capital
  - Identify and quantify limit usages and overages
- Risk dialogue and communication
  - Daily discussion with trading desks
  - Daily comprehensive risk reports
  - Weekly summary report and risk committee meetings
  - Quarterly and annual risk reviews and regulatory reporting
  - Reporting to Audit Committee

I. Market Conditions
- Price / Rates
- Volatility
- Liquidity
- Trends
- Credit Cycle

II. Key Risk Drivers
- Outright Exposures
- Spread Exposures
- Credit Risk
- Asset Liquidity
- Concentrations

III. Measure Risk Exposure
- VaR
- Stress Tests
- Current and Potential Exposures
- P&L Sensitivity
- Limit Usage

IV. P&L
- Risk / Return
- Daily
- Cumulative
- Sources

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Risk Analyses Must Include Business Risk

- Fluctuations in net revenues from variations in the business or market climate (e.g., the risk of variation in income from changes in underwriting, investment banking and new trading activities) are often greater than the fluctuations from position or trading exposures.

- A Firm’s appetite for position and/or trading risks should reflect the current level of business risk.

- Although the approach to incorporating business risk in analyses used to evaluate the level of overall Firm or Divisional risks or to set risk appetite may be heuristic (i.e., only a best estimate) by necessity, it is still important to incorporate these judgments and to make them explicit.
Risk Controls

- Mark to Market Discipline
  - Ensures revenues more closely track economics
  - Critical components
    - Independent reviews by Controllers
    - New Model Approval process

- Backtesting (i.e., the comparison of realized trading revenues against Value-at-Risk results)

- New product review processes

- Limits
  - Established at various levels throughout the Firm from trader to business and are defined in terms of risk sensitivities, concentrations and portfolio exposures
  - Generally set at levels to ensure that a material change in risk taking triggers a discussion between the trader or trading desk and management
Summary

- Culture and incentives matter

- Risk Management works best when the Firm’s risk appetite is clear and when business managers possess a strong risk management culture and own the risk

- An integrated, comprehensive approach to risk measurement and management works best

- Mark-to-market is an important risk management discipline

- Business risk should be incorporated into risk analyses

- Operational risk management is extremely important, but the level of risk exposure from a firm’s activities is largely a function of a particular firm’s effectiveness of management and the enforcement of standards

- Common sense is often paramount