Research Opportunities at the MS/OM-Finance Interface

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- Discussion
Background

• What is missing from most MS/OM models?
  – Consideration of financing:
    • Assumes available cash
    • No debt constraints
  – Distinction between systematic and unique risk
  – Pricing without overall market response
  – Market valuation of operations decisions
A Few Opportunities

• Financing constraints
  – Explicit consideration of financing constraint
  – How does this change MS/OM models?

• Risk considerations
  – Imperfect market models with MS/OM models
  – How to capture impact of unique risk

• Pricing models
  – Broader micro-economic models
  – Potential for macro-economic characterizations

• Market value effects
  – Value models
  – Empirical studies
MS/OM Areas

- Production and inventory
- Scheduling and planning
- Supply chain management
- Revenue management and pricing
- Uses of discrete/stochastic optimization
- ........
- CHALLENGE: Make models relevant to research in finance.