



D10: THE ROLE OF AN INVESTMENT SPECIALIST

2022 SOFE CDS

PRESENTERS



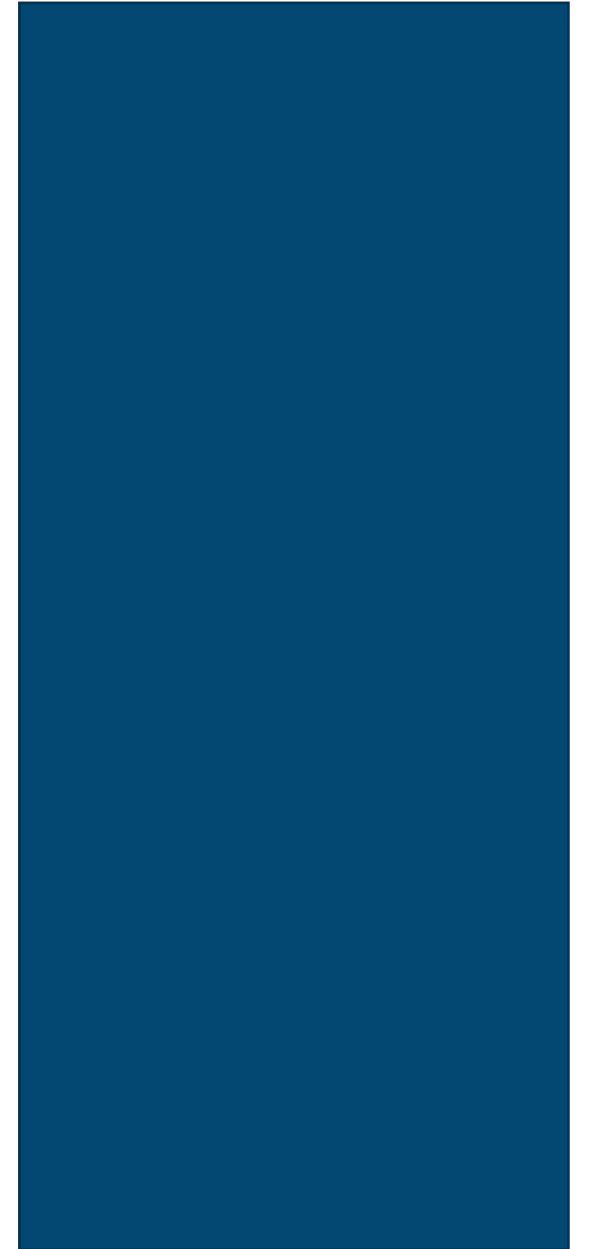
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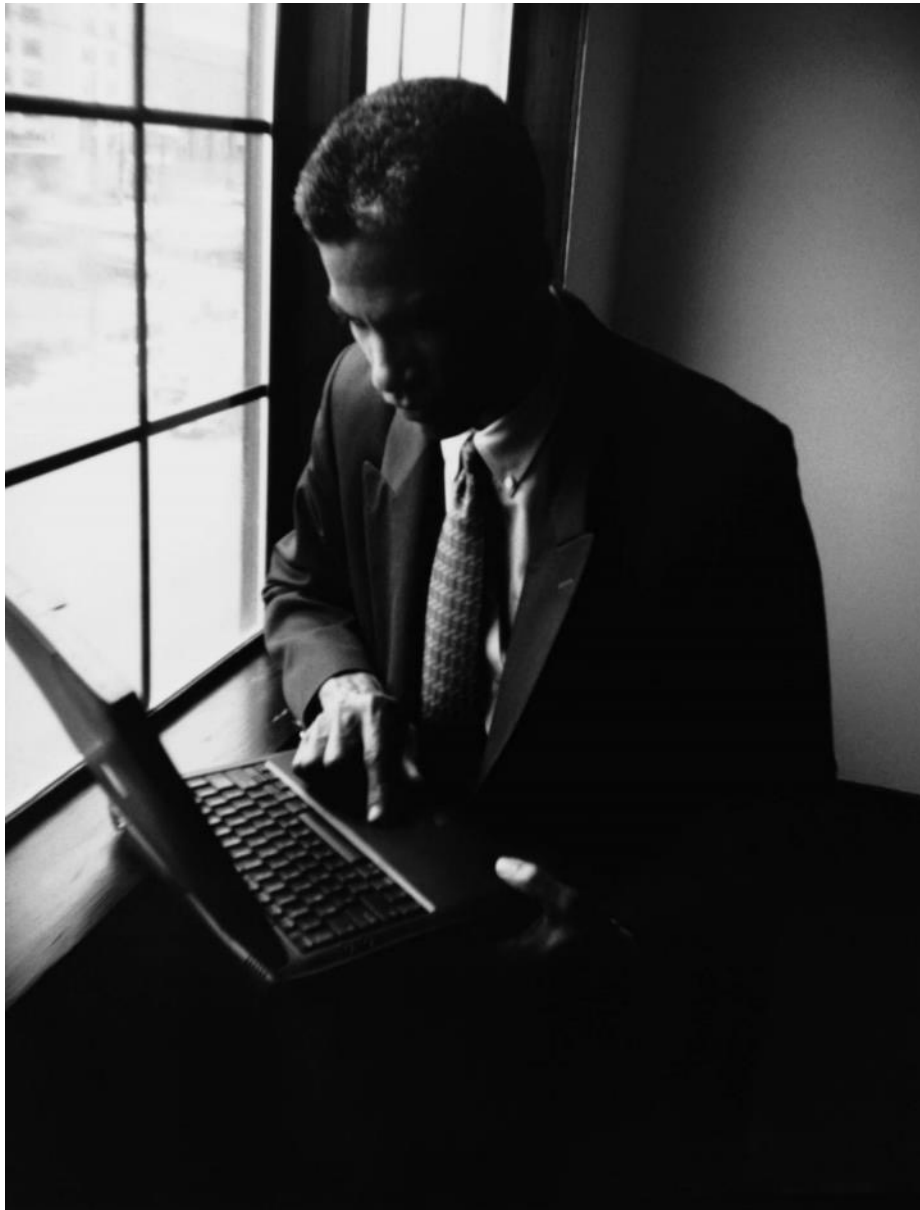


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Who is an Investment Specialist?



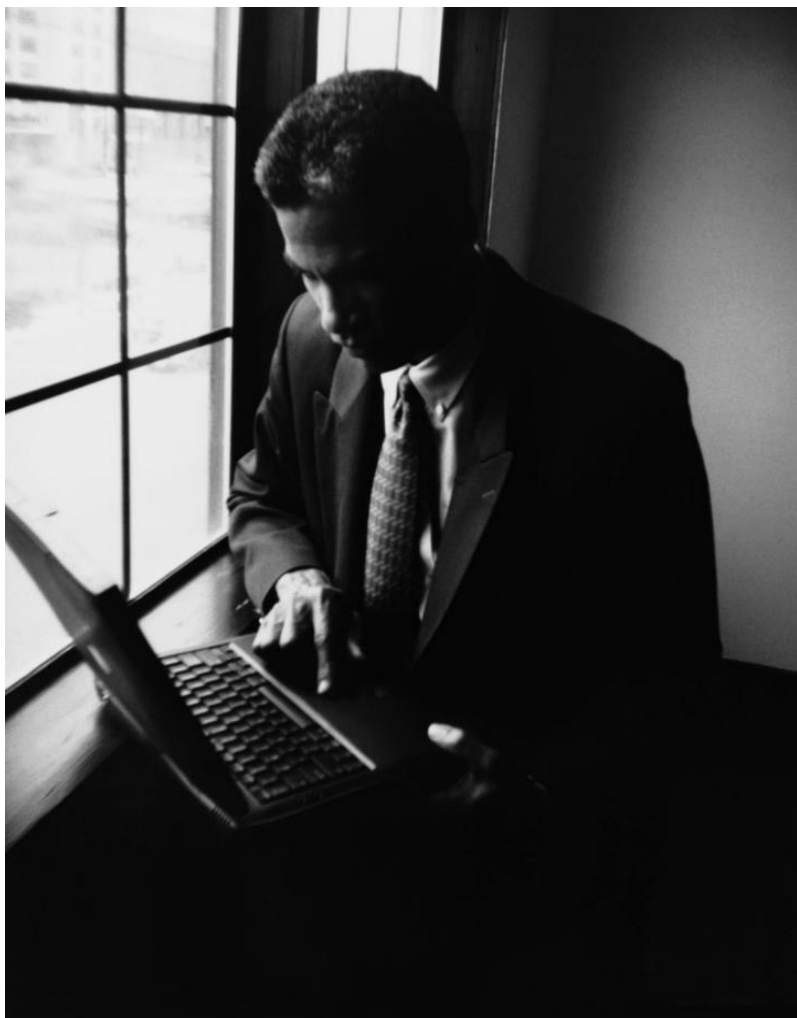
A SPECIALIST'S PROFESSIONAL BACKGROUND

- Professional background in investment portfolio risk management
 - Asset allocation
 - Risk/return analysis on the asset level and the portfolio level
 - Valuation and Risk Assessment of Hard to Value/Complex products
- Professional background in ALM/LDI risk management (1st or 2nd lines of defense)
- Professional background in internal capital models and ERM
- Academic preparation in financial economics, with typical (but not necessary!) degrees or certifications:
 - CFA;
 - FRM;
 - MBA or
 - Ph.D.

WHAT DO WE DO?

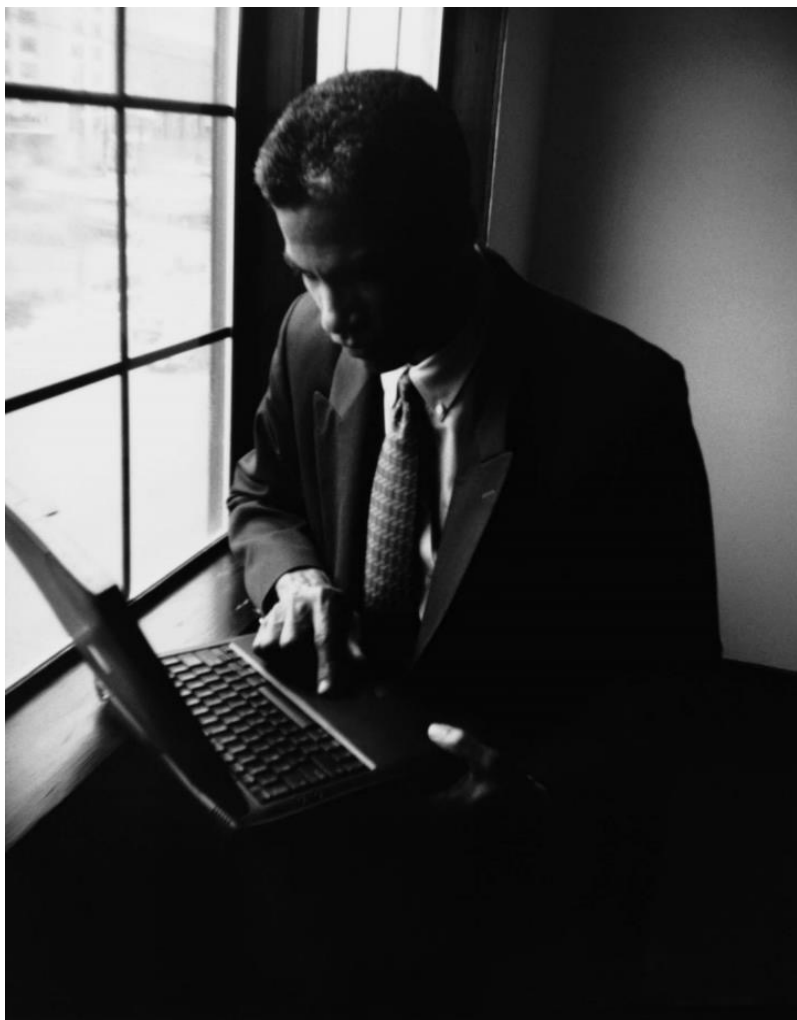
- Generally, as a group Investment Specialists are active in financial consulting with financial firms (bankers, dealers, portfolio manager and insurers) and in providing expert testimony in investment-related matters.
- Generally, Investment Specialists as a group are not qualified/certified financial examiners and cannot claim to be very handy with TeamMate. Specialists rely on examiners for their expertise in many respects.
- Our team includes an MBA/CFA with 16 years' experience in NYDFS Capital Markets and a CFA/Columbia University M.S. in Mathematical Finance





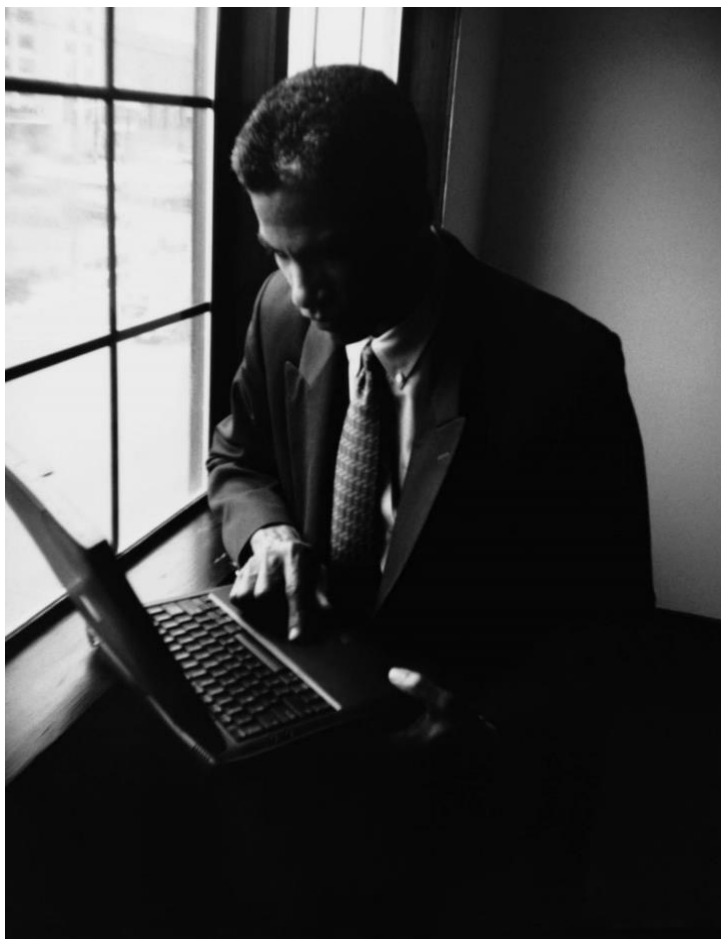
WHAT WE DO ON AN EXAMINATION?

- Work collaboratively with State regulators – capital markets and finance experts.
- Determine adequacy of 1st and 2nd line of defense functions
- Determine adequacy of all investment portfolio risk guidelines (or policy statements), metrics and risk reports
- Determine investment risks that pose significant threats to profitability or solvency before and after mitigation.
- Determine appropriateness of asset mix with respect to the liability side of the balance sheet (i.e., appropriateness for the company's business)
- Review and provide critique of approach to valuation and risk assessment of Level 2 and Level 3 assets, e.g., model risk assessment
- Review derivative usage
- Review investment inputs/outputs to internal capital models
- Conduct peer-level interviews with CIOs, CROs and their staffs.
- Evaluate risk mitigation; testing.
- Whatever the EIC wants us to do.



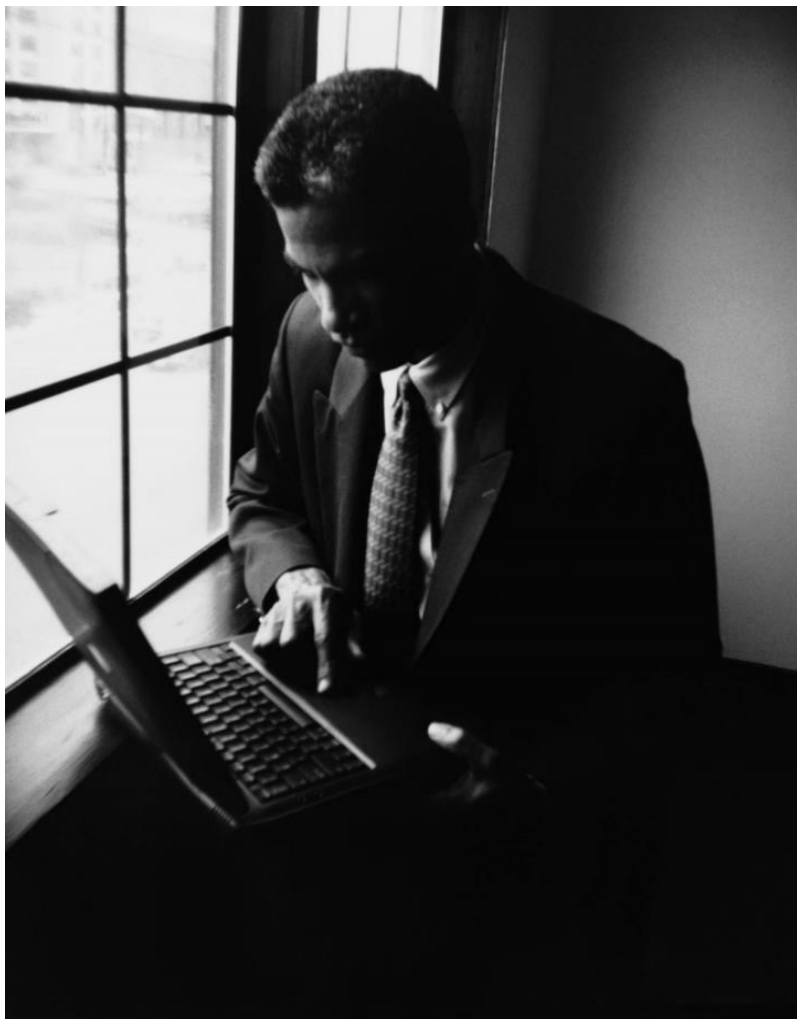
DOES YOUR EXAM NEED AN INVESTMENT SPECIALIST?

- Not every exam including investment portfolio requires any “specialist” expertise and many examiners understand well all the plain vanilla issues in investment management that typify many if not most insurance companies
- Some exams require expertise only in specific concentrated asset classes and not in full-scope portfolio matters:
 - We have been hired to review only PE/Alternative portfolios
 - We have been hired to review only Commercial Real Estate Portfolios
 - We have been hired to review only CLO and Combo Note Portfolios
 - We have been hired to review only Pension Portfolios and PRT.



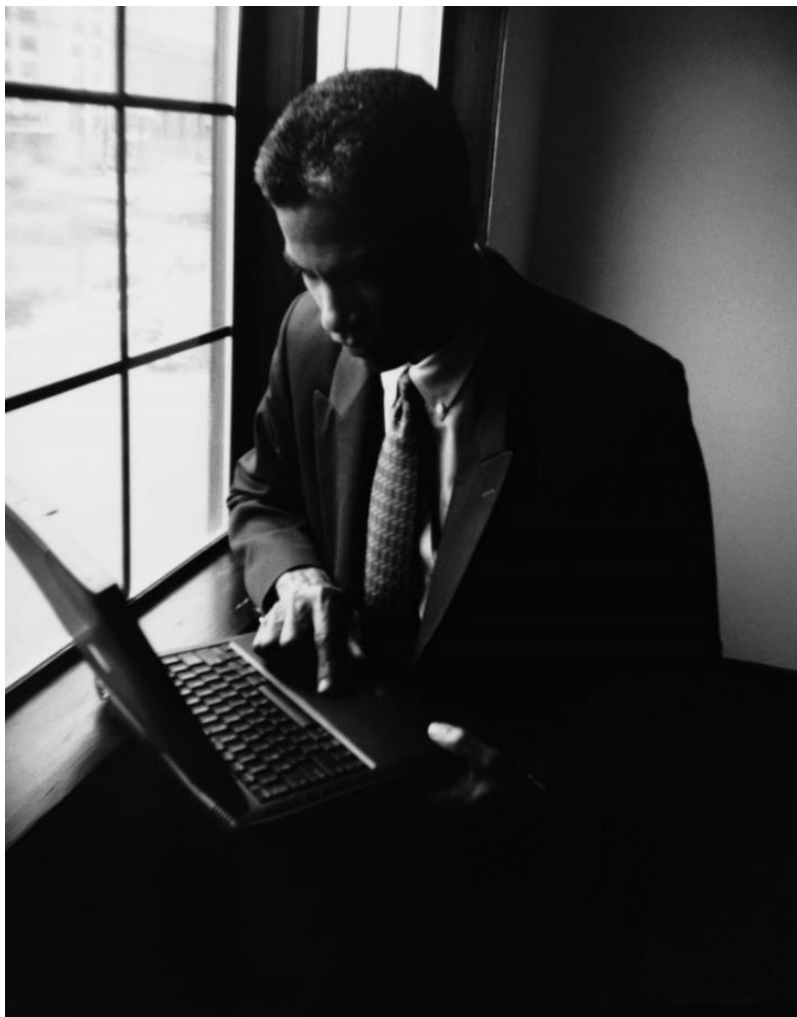
DOES YOUR EXAM NEED AN INVESTMENT SPECIALIST?

- Typical red flags or indications of a need to engage an Investment Specialist:
 - NAIC Capital Markets Bureau Preliminary Portfolio Analysis
 - High volume of NAIC Jumpstart exceptions (designation exceptions, invalid CUSIPS, etc.). **This is often an overlooked tool that can be very effective.**
 - Sophisticated investment portfolio (complex holdings, CLOs, substantial Schedule BA assets)
 - Large exposure to privately placed bonds, non-investment grade, as well as bonds and equities of unknown and/or obscure issuers
 - Large number of Level 2 and Level 3 assets
 - ORSA reviews indicating lacking ERM capabilities and Investment Risk Management processes.
 - High portfolio turnover ratio
 - Private Equity (PE) ownership structure



INTERNAL COORDINATION EFFORTS IN AN EXAMINATION

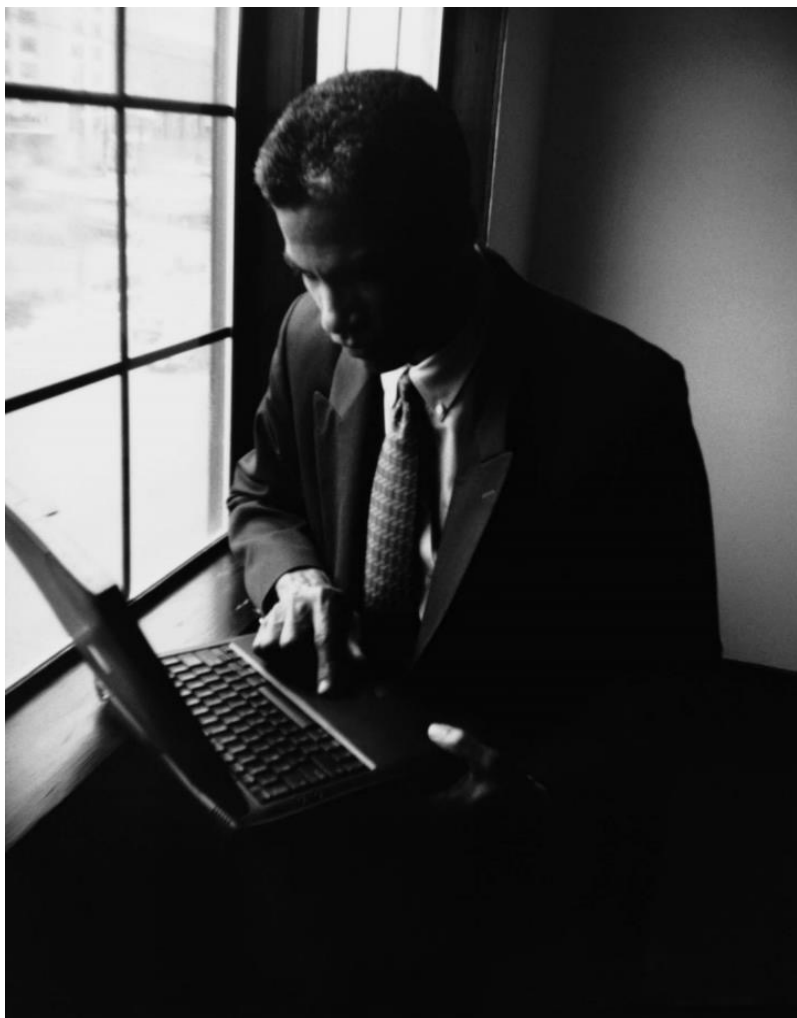
- Examiner in Charge must ensure the Investment Specialist and Examination Actuaries are in frequent communication
- Inviting the Investment Specialist and Examination Actuaries to regular coordination calls between States and examiners can be very effective to keep everyone informed of what the Investment Specialist and Actuaries are observing when performing their work



ADEQUACY OF THE 1ST AND 2ND LINES OF DEFENSE

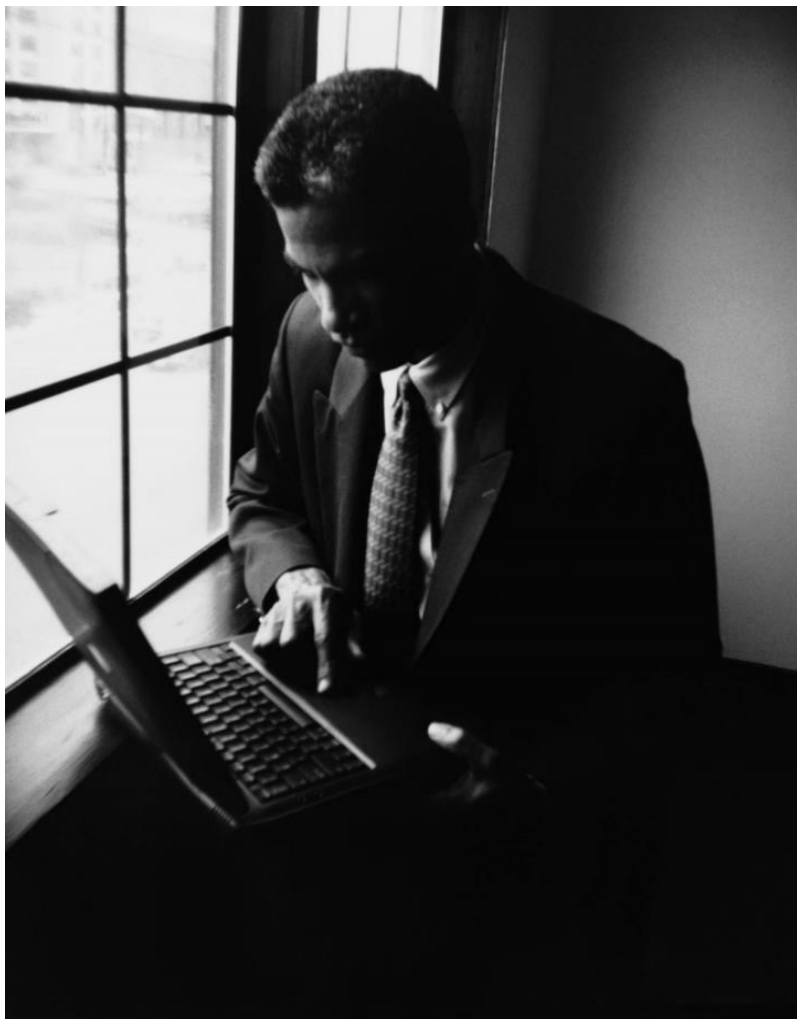
Typical scenario at an insurer:

- 1st Line of Defense: CIO and his/her team
- 2nd Line of Defense: CRO and his/her team; Risk and Investment Committees; Financial Control
- 3rd Line of Defense: Internal Audit (generally not reviewed by Investment Specialist)



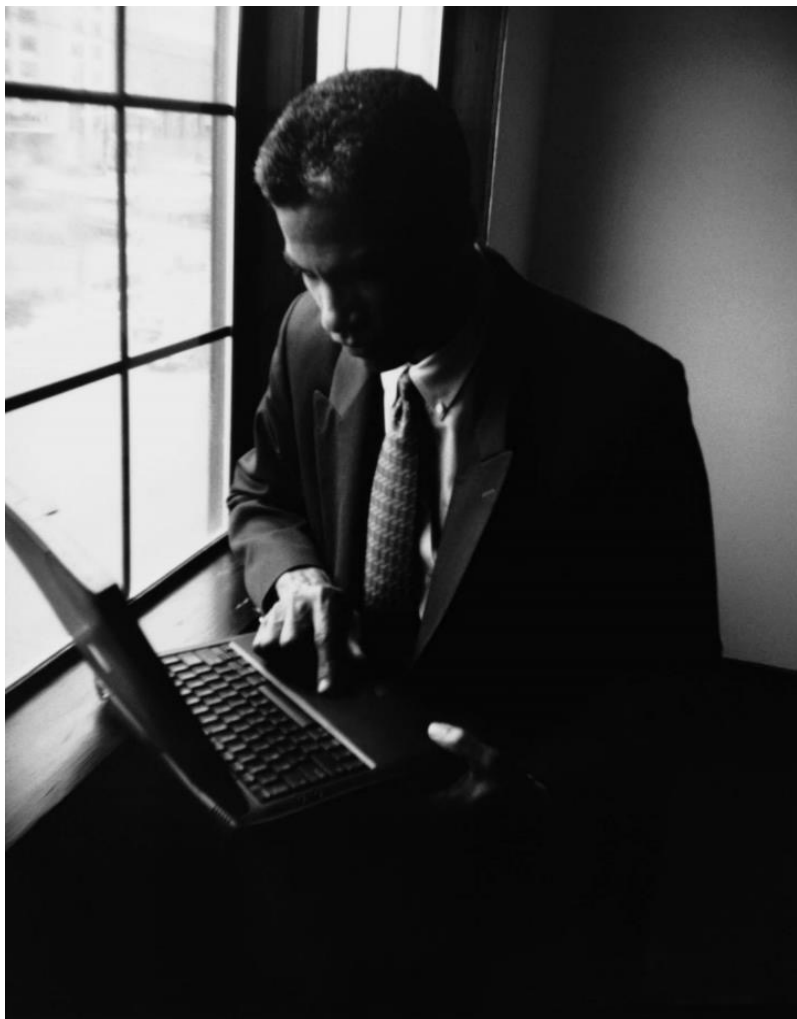
INVESTMENT GUIDELINES, RISK METRICS AND REPORTS

- Are metrics adequate? For example:
 - Stress testing
 - Probabilistic risk measurement
 - Portfolio duration and ALM duration gap analysis
 - NRSRO and internal credit ratings
 - KRIs for operational risk
- Who receives risk reports and how often?
- Are risk limits and general guideline limits (e.g., basket limits) reasonable, and how are breaches handled?



SIGNIFICANT RISKS TO PROFITABILITY OR SOLVENCY BEFORE AND AFTER MITIGATION

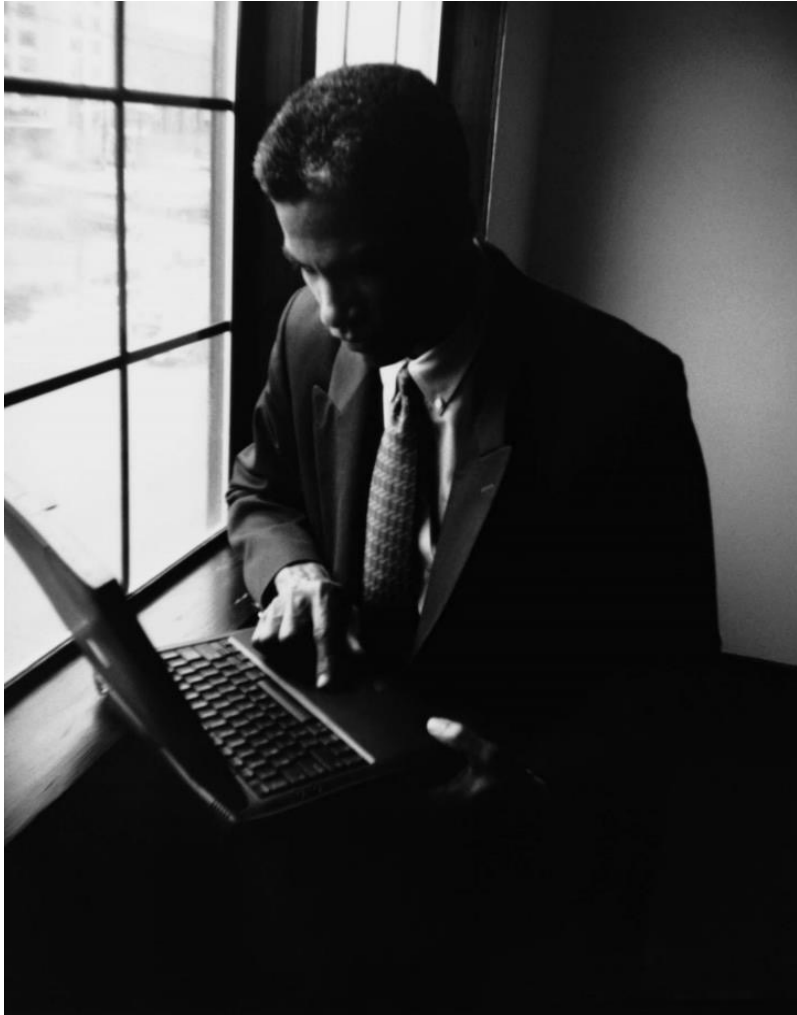
- Are certain asset classes over-concentrated (too much CRE? Too many CLOs?)
- Are models inadequate for current and planned investment in each asset class (experience with a mutual life company that discussed models for commercial mortgage lending but had none as it turns out).
- Are investments over-concentrated in initiatives of a single individual (be it the CEO or a related party)? We have seen this recently.
- Is the investment portfolio managed by a professional CIO? MBA? CFA? Experience at BlackRock, State Street, etc.?



ASSET MIX AND LIABILITY MATCHING

Examples of scenarios that could be problematic:

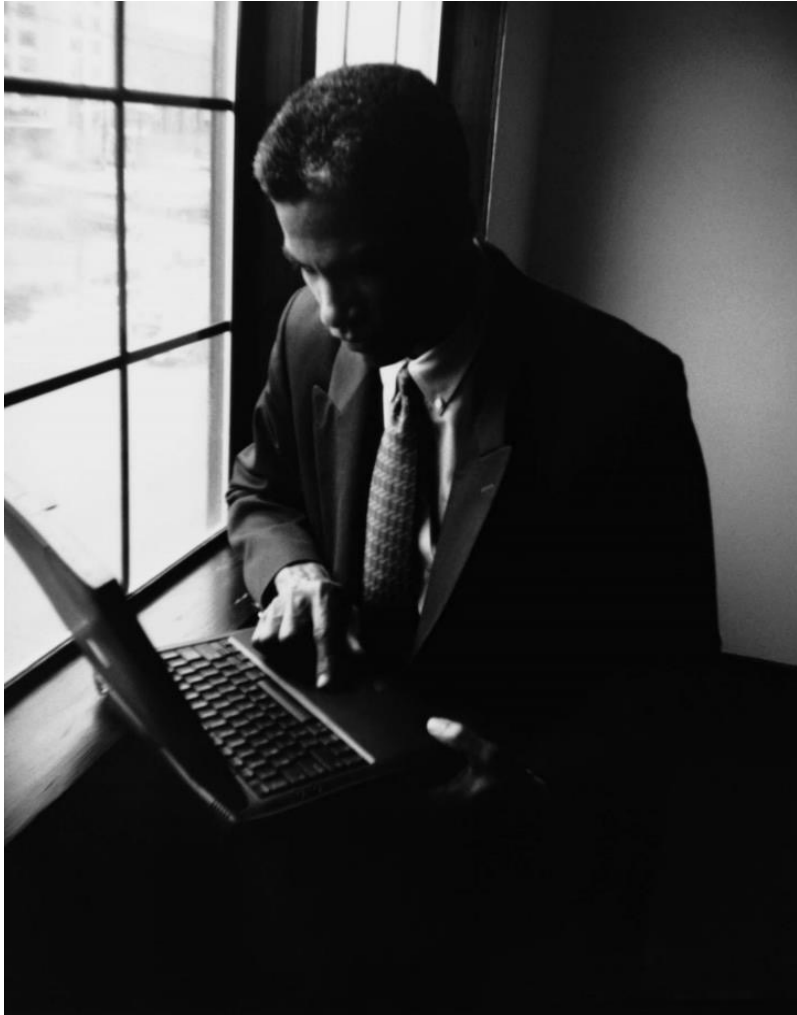
- Is a monoline insurer (there are two) investing in California GOs?
- Is the asset liquidity profile consistent with the expected and unexpected profiles of liability cash flow?
- Is the asset mix based on current assessments of the macroeconomic environment (e.g., rapid inflation and likely recession).



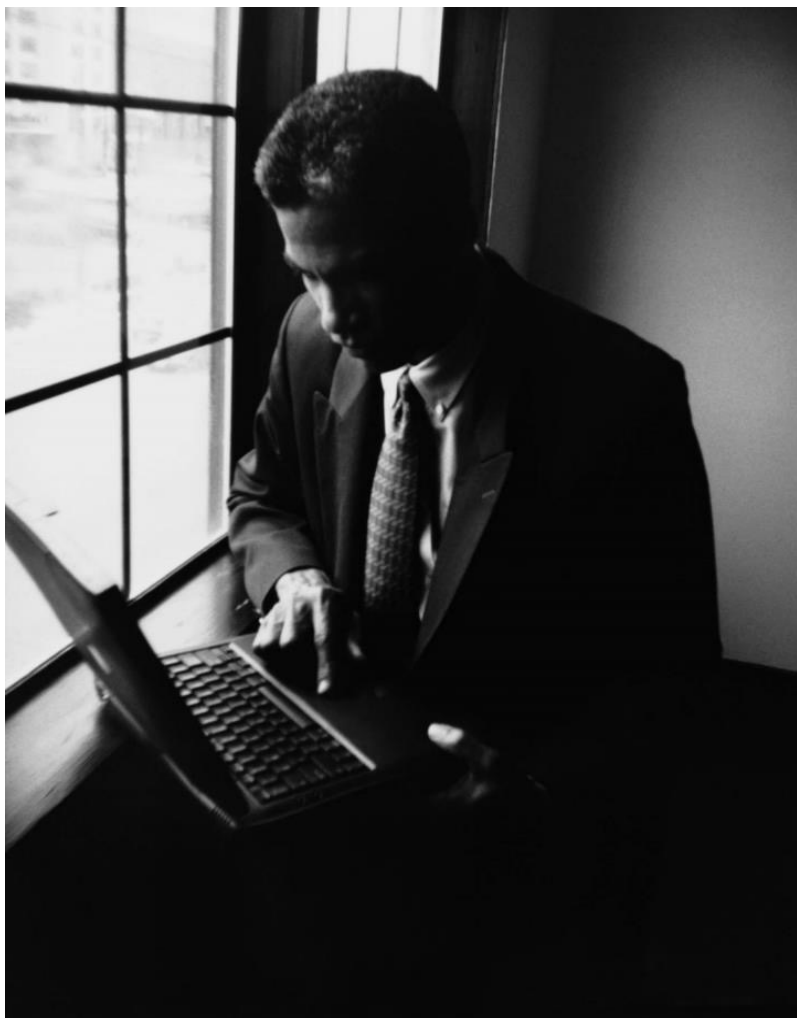
VALUATION AND RISK ASSESSMENT OF LEVEL 2 AND LEVEL 3 ASSETS

- What discount rates are used? What are the model inputs? How are models calibrated?
- Review documentation and validation study (if such exists, and if not explain importance) of:
 - RMBS models
 - CRE and CMBS models
 - PE valuation models (DCF?)
 - CLO models
 - Leveraged Loan models
 - Bond pricing models including bonds with embedded derivatives.
- OTTI Procedures
- Review of CPA workpapers
- Any Libor transition risk?
- **WHAT ARE ACCEPTANCE AND UNDERWRITING CRITERIA?**

BENCHMARKS AND EX-POST PERFORMANCE EVALUATION

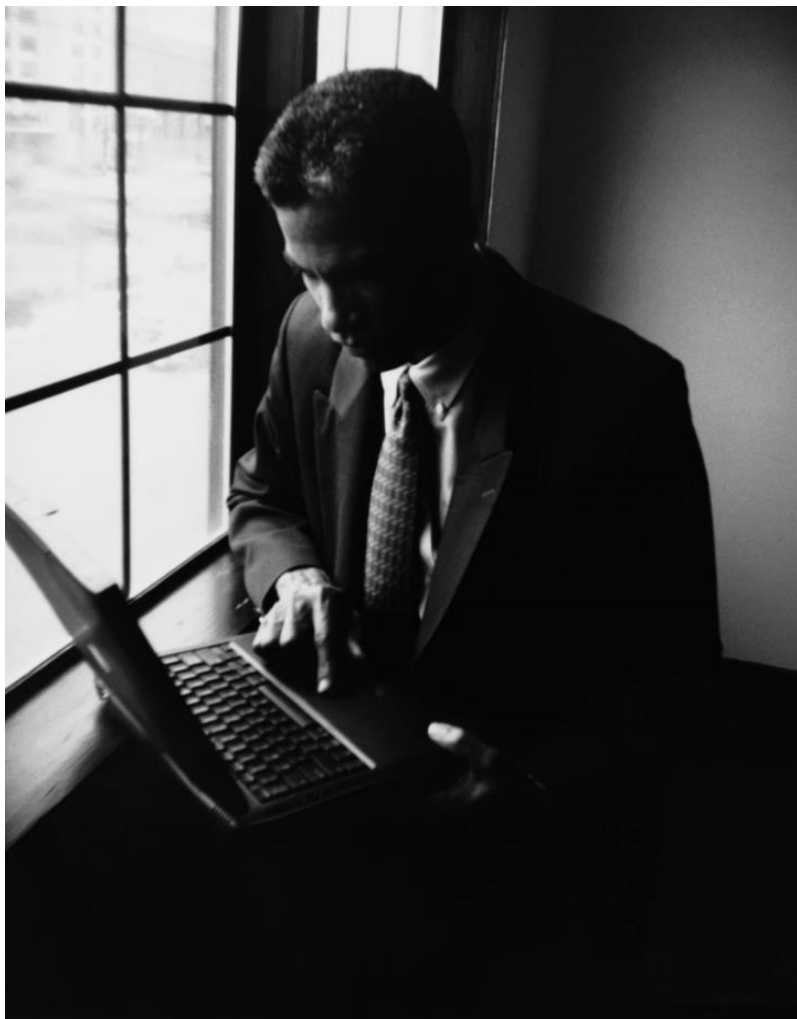


- Benchmarking of invested asset classes
- Methodologies of performance evaluation relative to benchmarks
- Is executive compensation related to performance evaluation?



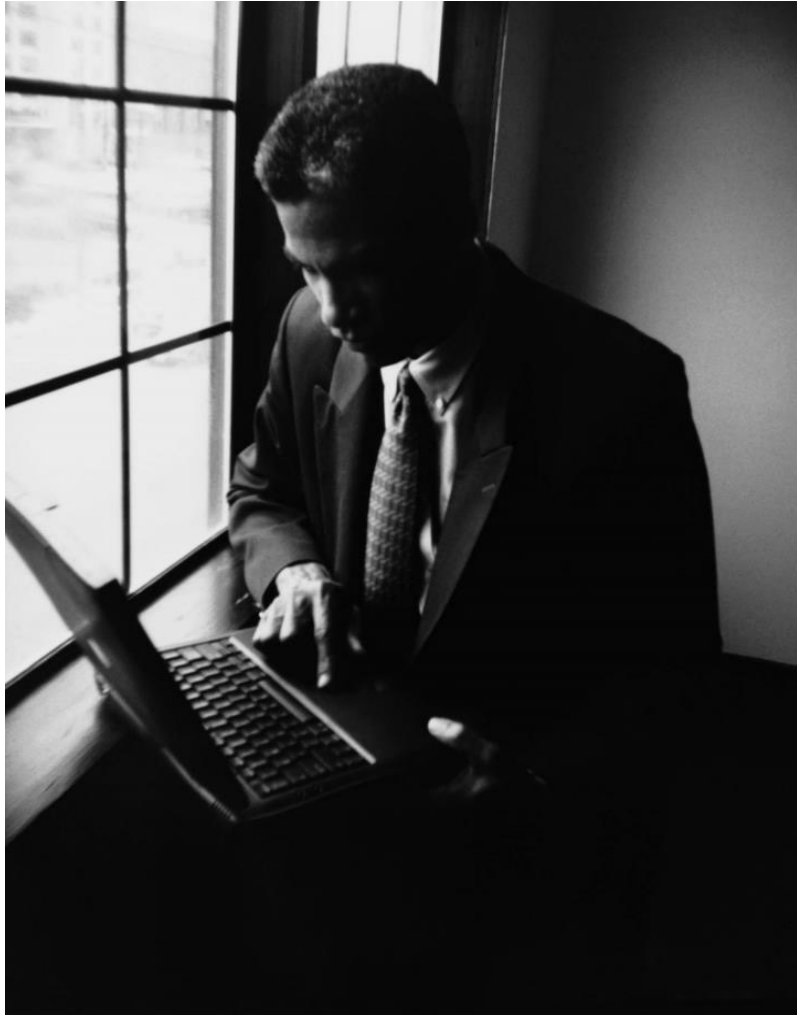
DERIVATIVE USAGE

- Hedging (generally asset hedging, often CIO responsible for annuity hedging)
 - Effectiveness criteria (are there any?)
 - Hedge strategies including written options
 - Valuation of exotic derivatives (e.g., variance and volatility options)
- Income generation issues (e.g., writing “covered” put options?)
- Arbitrage (synthetic asset replication) – truly riskless?
- Choice and diversity of counterparties.
- Counterparty credit risk measurement and IM/VM



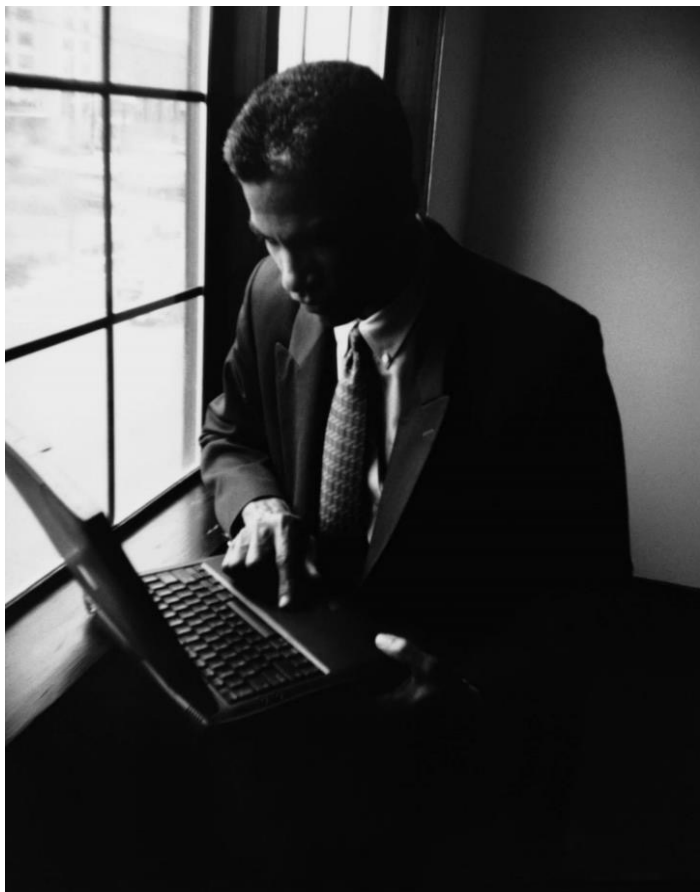
INVESTMENT INPUTS AND OUTPUTS TO INTERNAL CAPITAL MODEL

- Contributions to 1-in-20, 1-in-100 and 1-in-200-year market risk and credit risk losses?
- Asset yield calculations for discounting (net of costs and expected credit losses?)



RISK MITIGATION AND TESTING PROCEDURES

- Observation of model runs
- Review of control functions
- Review of relevant committee minutes and/or agendas
- Review of internal and external audit reports



C-LEVEL AND ASSET MANAGER INTERVIEWS

- Preferably in person
- If not in person, Zoom, Teams etc. with camera ON
- Questions to exam team and agenda to interviewee
- Looking for a sense of expertise, investment philosophy, economic awareness, and succession planning.
- Company attorney often joins CIO and CRO interview
- Preparation is very important PRIOR to the interview – interview provides for a good opportunity to validate the insurer follows the process(es) provided in ORSA, Investment Committee Charter, and other risk management and investment documents provided to examiners and/or actuaries.
- Invite the Examination Actuary to participate – important to ascertain how much coordination there is between the Investment function and Actuarial function (i.e. do actuaries provide duration targets, how does the portfolio construction account for actuarial input and liability mix, etc.)



SUMMARY

- Work with EIC along the way through phases of TeamMate reporting and wrap up
- Write final report with conclusions, suggestion and recommendations
- Exit conference with Company.

SUMMARY

QUESTIONS?

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