



Liquidity Management & Risk-Controlled Investment Programs for Corporate Cash Portfolios

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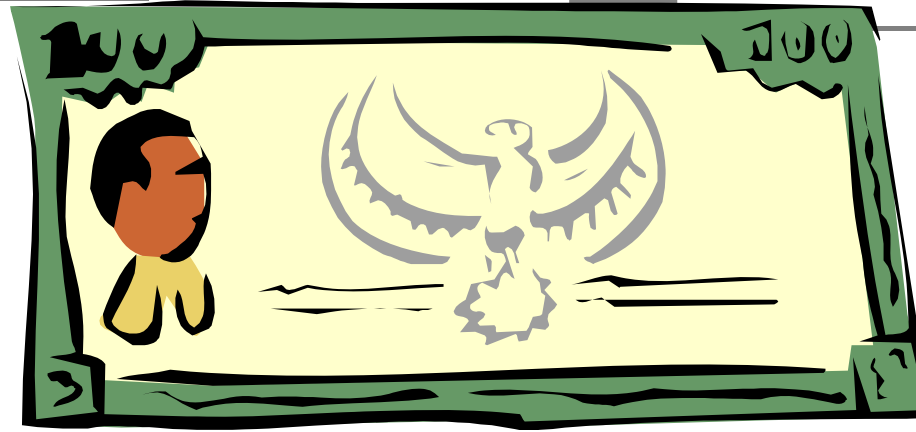


- KLA-Tencor overview
- CY2008 at KLA-Tencor
- Investment philosophy
- Liquidity management
- Risk controls
 - Investment policy
 - Daily compliance



- KLA-Tencor (NASDAQ: KLAC)
 - Global leader in yield acceleration
- Inspection and measurement equipment and services to manufacturers of semiconductors and related industries
- Headquartered in San Jose, California
 - Operations in North America, Europe and Asia
- FY 2008 revenue > \$2.5B
- \$1.6B total cash & investments
 - As of 6/30/08
- ~ 6,000 employees worldwide

- **12/31/07**
 - Cash \$1.3B
 - No debt
- **2/21/08**
 - Announced acquisition for Belgium company ~\$500M USD equivalent
- **4/28/08**
 - Inaugural investment grade debt offering \$750M
 - Moody's: Baa1, S&P: BBB, Fitch: BBB
- **6/30/08**
 - Cash \$1.6B
 - \$750M debt



- Credit-crunch environment
- Conservative investment philosophy (increase)
 - Credit quality
 - Asset classes
 - Duration and max maturity
- New taxable investment portfolios
 - Historically tax-exempt and gov't
- Hire new portfolio managers
 - Firm's investment philosophy and strategy
 - Reviewed PM's historical performance
 - On-site interviews, reputation
 - Reference checks



- Credit crunch issues/concerns
 - Enhanced MM funds
 - Maintain \$1.00 NAV
- Option: Treasury/Gov't funds
 - Yield <1%
- Risk management
 - Interview portfolio managers
 - Exposures, what kind?
 - Investment diversification
 - KLA-Tencor interpretation of the information
- MM portal report
 - Parent (sponsor) strength
 - Subprime exposure
 - SIV exposure



- Foundation
 - Homework on overall investment structure
 - Portfolio manager, asset classes, sensitivity testing
- Compliance systems at PM's firm
 - Demonstrate the value of their system
 - Test the system
- KLA-Tencor compliance checks
 - Daily compliance reports
 - Quarterly in-depth review



Questions?





Liquidity Management and Risk Controlled Investment

Melanie Mock

Treasurer

www.equinix.com



Who are we?

Equinix is the leading global provider of network-neutral data center and interconnection services, with 40 IBX centers comprising over 1 million of data center square footage in 18 strategic markets across North America, Europe and Asia-Pacific.



NASDAQ: EQIX



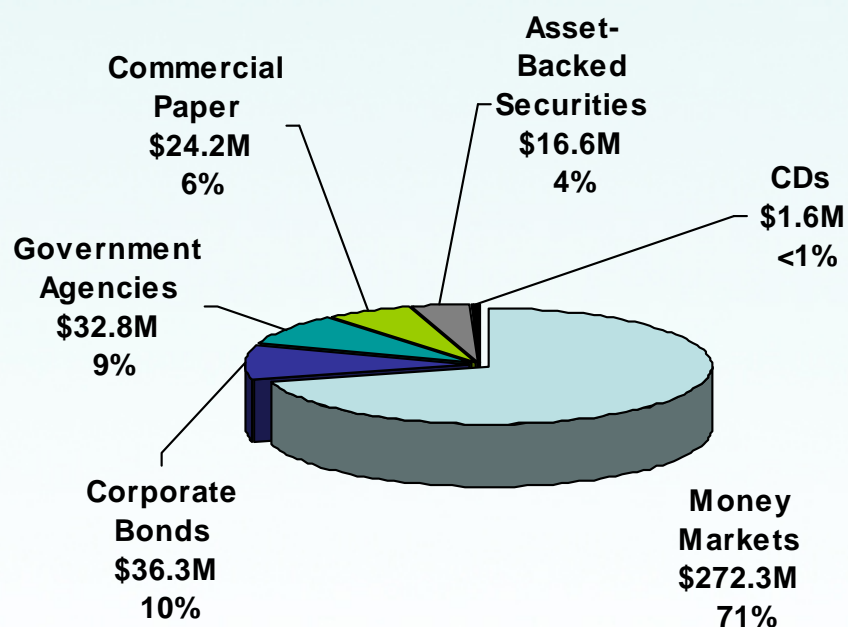


Investment Characteristics prior to any review

- Investment portfolio had previously been allocated among:
 1. Broker/Dealer arrangement
 2. RIA - Active Asset Manager
 3. Money Market Portal

- Significant fluctuations in invested balances to finance capital expenditures
- Long standing legacy relationships with broker and active manager
- Did not necessarily result in optimal service and active portfolio management

Worldwide Asset Allocation



- Conservative and static investment program had left us with a portfolio:
 - Not well diversified due to strict ratings criteria
 - Reflected high concentration of broker/dealer issued paper
- Heavily weighted toward liquidity in anticipation of portfolio migration
- Prompted a 3rd party review and assessment



Third Party Portfolio Review

Retained an independent, 3rd party, institutional investment consultant to assess our portfolio, recommend enhancements and oversee new manager selection

Key Deliverables of the Investment Consultant

- **Investment Policy review**
- **Manager performance measurement**
- **Recommendation of portfolio strategy and benchmarks**
- **Money Manager selection**
- **Custodian and Reporting Source review**

Outcomes and Recommendations

- **Investment Policy modifications based on a risk averse profile and strong need to diversify**
- **17 Money Manager RFP's evaluated**
- **3 Managers selected for management interviews**
- **Selected 2 Money Managers to run separate portfolios, 6 month and 1 year durations**



Key Investment Policy Changes with the Objective of Mitigating Risk

- Investment Policy was reviewed and benchmarked with recommendations to Audit Committee
- Enhanced parameters for investing in ABS:
 - 36 month WAL, senior tranche only
 - No mortgage collateral or prepayment sensitive issues
 - Seasoned paper with stable paydown history
 - No quirky structures
- Excluded variable rate and auction rate securities
- Lowered % GSE/Agency holdings
- Lowered limits on Corporate Debt
 - Combined CP and notes under same corporate limits
- Lowered GSE Ratings on debt to achieve portfolio and industry diversification



- Custodian: implemented for safekeeping arrangement
- Reporting and valuation: reporting, reconciliation, mark to market
- Investment Manager 1: Operating, short term cash
 - 6 month target duration
 - Liquid, conventional securities
 - 12 month maximum per security maturity
 - Average portfolio quality Aa2/AA
- Investment Manager 2: Strategic Cash
 - 1 Year Target Duration
 - Conventional and asset backed securities
 - 36 month maximum per security maturity
 - Average portfolio quality Aa2/AA

- Remaining within narrow credit quality range can create more concentration risk and downside to the portfolio
- These higher, more limited ratings forces investments into:
 - AAA rated ABS, MBS, structured securities
 - Fewer sectors rather than encouraging diversification across several sectors
 - More complex, structured vehicles - subject to greater volatility
 - Structured - more difficult to understand under a credit stress environment
 - Limitations on issuer selection that actually meet the stringent ratings criteria
 - Primarily financial issuers which:
 - Require higher ratings due to lack of hard or tangible assets
 - Subject to higher leverage and at greater risk for rapid changes in fundamentals

In selecting an active Money Manager in conjunction with our recently benchmarked Investment Portfolio we have come to expect that:

- Managers should have flexibility to move among sectors (Financials, Industrials, Utilities) over time as fundamentals and overall leverage in a sector shifts making certain investments unattractive.
- Managers should rely less on Rating Agencies which are typically reactive and should conduct their own research and analysis to identify leading market trends and opportunities. For those firms who have ready access to this research they should use it more readily

- Key changes to our investment program were prompted by a need to achieve better risk management, independence, strength in research, focus on diversification
- Legacy relationships had resulted in less insightful, less active management that was subjecting our portfolio to greater risk
- New managers were selected with keen interest in their:
 - Focus on independent credit research and evaluation
 - Investment approach that favors smaller issue size transactions in efforts to increase diversification





Bridgebay
Investment Consulting Services

AFP Annual Conference Los Angeles, CA

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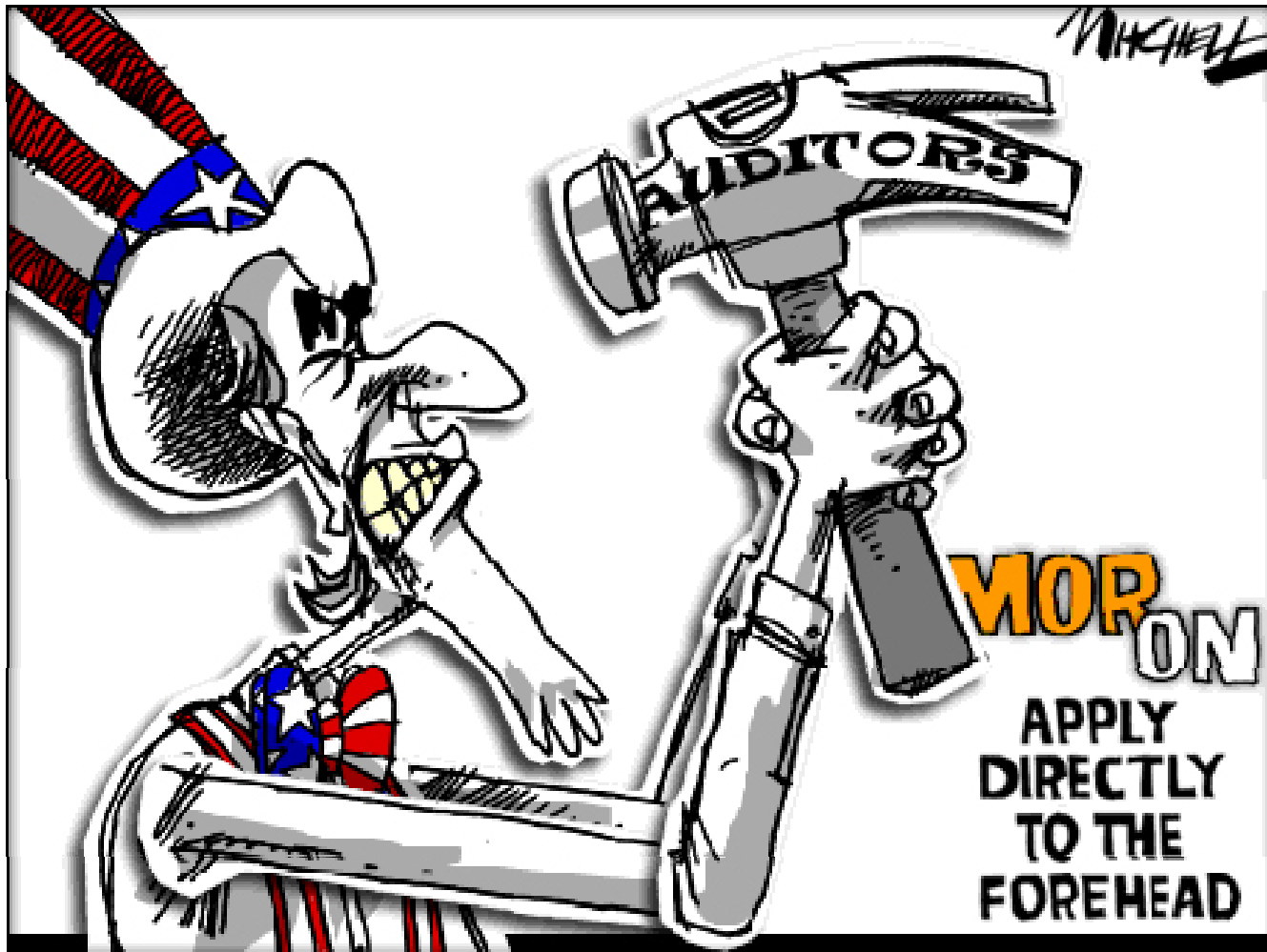


Section 101. Purchases of Troubled Assets

- Authorizes the Secretary to establish a Troubled Asset Relief Program (TARP)

▶ Section 115. Graduated Authorization to Purchase.

- Authorizes the full \$700 billion as requested by the Treasury Secretary for implementation of TARP
- Treasury bought \$250 billion preferred stock of major banks
 - Bank of America, BNYMellon, Citigroup, JP Morgan, Goldman Sachs, Merrill Lynch, Morgan Stanley, State Street, Wells Fargo
- Additional \$100 billion upon Presidential certification
- The final \$350 billion when approved by Congress



- ▶ **Section 132. Authority to Suspend Mark-to-Market Accounting.**
 - Restates the SEC's authority to suspend the application of FASB 157 Fair Value Measurement to banks

- ▶ **Section 133. Study on Mark-to-Market Accounting.**
 - Requires the SEC, in consultation with the Federal Reserve and the Treasury, to conduct a study on mark-to-market accounting
 - SEC must detail its effects on balance sheets, impact on the quality of financial information, and other matters, and to report to Congress within 90 days on its findings.
 - SEC can no longer ignore FASB 157 and must address the markets concerns



- ▶ **Section 136. Temporary Increase in Deposit and Share Insurance Coverage.**
 - Raises the FDIC and the National Credit Union Share Insurance Fund deposit insurance limits from \$100,000 per account to \$250,000 until December 31, 2009.
 - Separately, FDIC expanded insurance to corporate non-interest earning demand deposits in banks

- ▶ **Section 111. Executive Compensation and Corporate Governance.**
 - Limits executive compensation
 - When Treasury buys assets at auction, an institution that has sold more than \$300 million in assets is subject to additional taxes, including a 20% excise tax on golden parachute payments triggered by events other than retirement, and tax deduction limits for compensation limits above \$500,000.

▶ **Section 109. Foreclosure Mitigation Efforts.**

- For mortgages and mortgage-backed securities acquired through TARP, the Secretary Treasury must implement a plan to mitigate foreclosures and to encourage servicers of mortgages to modify loans through Hope for Homeowners and other programs.
- Allows the Secretary to use loan guarantees and credit enhancement to avoid foreclosures.



How many more bullets can we dodge?



- ▶ Guarantees share price of SEC 2a-7 regulated money funds
- ▶ For shareholders as of September 19, 2008
- ▶ Applies to funds with NAV per share \geq \$0.995
- ▶ Covers maximum investor balances in funds as of September 19, 2008
- ▶ Funds responsible for fees required for participation in program
- ▶ Expires on December 18, 2008
- ▶ Could be extended by Treasury until September 18, 2009
- ▶ Treasury and Government Agency Funds are excluded

<http://www.treas.gov/offices/domestic-finance/key-initiatives/money-market-fund.shtml>



Do any of you feel like this?



- ▶ Complements Fed's existing credit facilities to provide liquidity to CP
- ▶ Liquidity backstop to U.S. CP issuers via a special purpose vehicle (SPV)
- ▶ Purchase 3-month unsecured and ABCP directly from eligible issuers
- ▶ Treasury/Fed will finance or lend to the SPV, take up-front fees or securities from issuers

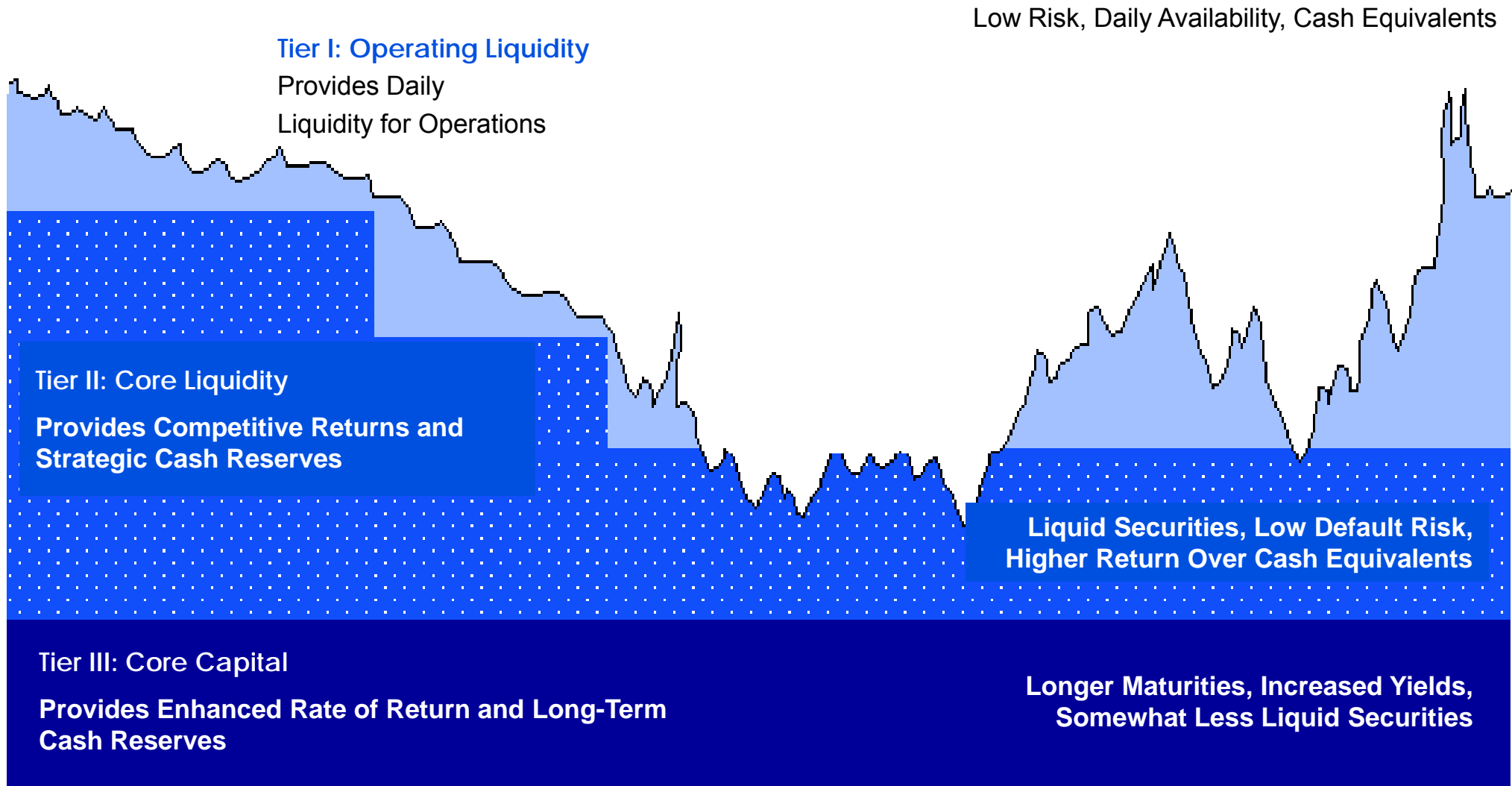
- ▶ General criteria for purchase
 - ABCP and CP must be rated at least A1/P1/F1 by a major NRSRO
 - US issuers including US issuers with a foreign parent
 - Non ABCP paper must be secured per Fed approval
 - CPFF still has discretion to selectively purchase paper
 - Not all paper automatically qualified

- ▶ <http://www.federalreserve.gov/newsevents/press/monetary/20081007c.htm>



- ▶ Strengthen the banking sector further
 - Recapitalize the FDIC
 - Recapitalize the banks
 - Lower reserve requirements to kick start lending
 - Recreate the Resolution Trust Company
- ▶ Stimulus for consumers and housing market
 - Mortgage Forbearance
 - Modify loans to keep people in their homes
 - RTC-type system for foreclosed property
 - Absorb and remove housing inventory from market to protect neighboring house prices
- ▶ Financial system reform
 - Create CDS clearinghouse
 - Create MBS TBA clearinghouse
 - Enhance disclosure requirements
 - Expand Federal Reserve oversight
 - Change statutory rules on leverage

Each tier has distinct, separate guidelines and benchmarks





Balance Sheet Cash Tiering

- ▶ Define cash pools by investment horizon
- ▶ Determine objective of each investment tier
 - Liquidity or return
 - Priorities differ by investment horizon
 - Return of capital is always an objective
- ▶ Develop benchmark for each tier
 - Market driven indices
 - Duration of benchmark similar to duration of investment tier
 - Underlying instruments and credits exist
 - Easy to calculate, verifiable
- ▶ Back-up or replacement money managers pre-approved

- ▶ **Asset liability management**
- ▶ **Authority and responsibilities**
- ▶ **Eligible investments**
- ▶ **Third party custodian**
- ▶ **Counterparty risks**

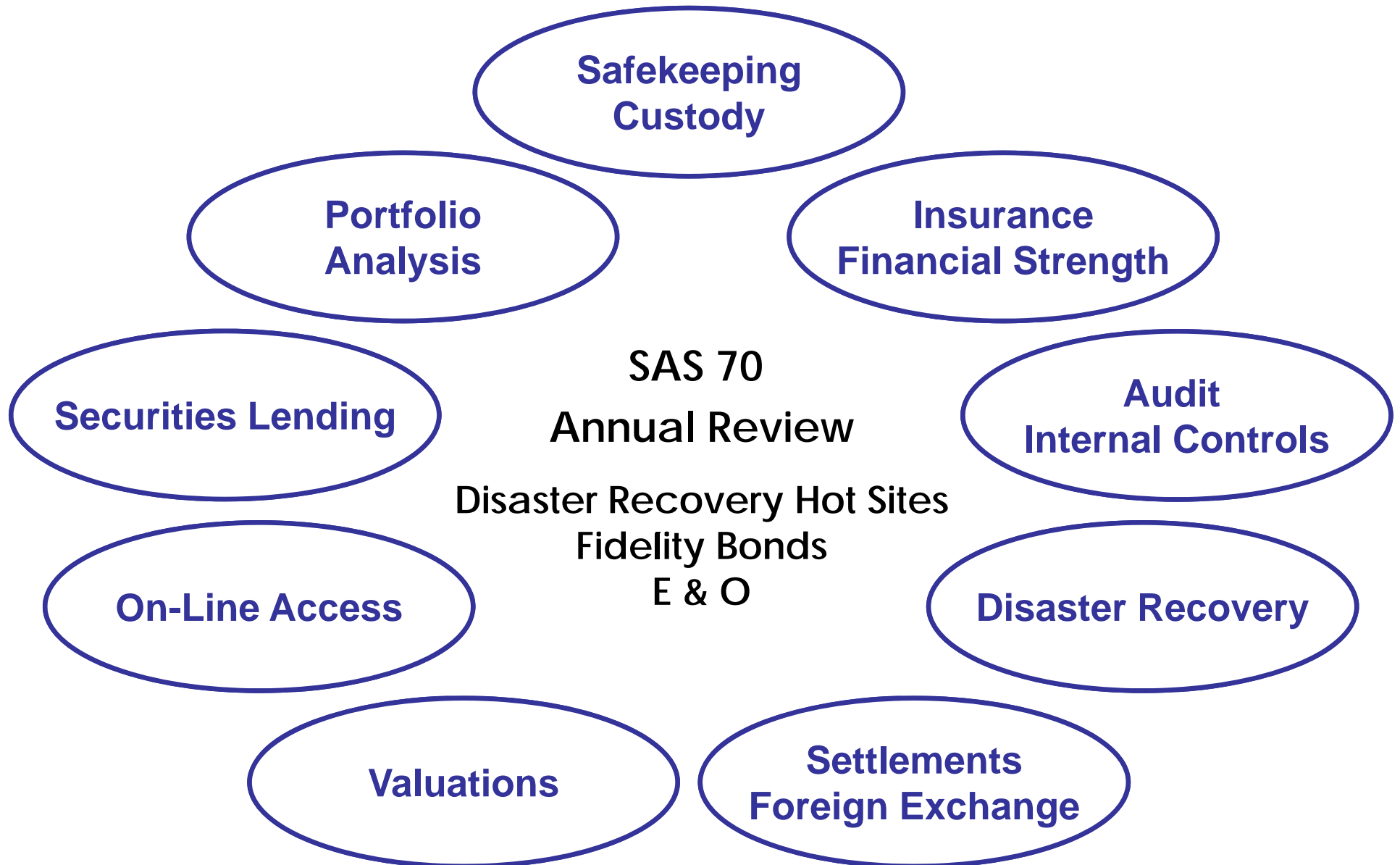


- ▶ External investment manager criteria
- ▶ Reporting and accounting
- ▶ Performance standards
- ▶ Risk controls and loss constraints

Investment Policy Statement

- ▶ **Third party custodian**
 - SAS 70
 - Pricing sources
- ▶ **External manager contracts**
 - Affiliated brokers
 - Conflicts of interest
- ▶ **Counterparty risks**
 - Concentrations
 - Exposure to other parts of company
- ▶ **Evaluate primary, introducing brokers**
 - Insurance
 - Clearing
- ▶ **Review asset liability management**
- ▶ **Update portfolio risk controls**
- ▶ **Separate authorities and responsibilities**
- ▶ **Eligible investments**
 - Diversification by industry
 - Credit quality scale back based on AAA
 - Reduce issuer exposure to 2 – 5%
 - Expand types of securities
- ▶ **Establish approval criteria**
 - External manager (SEC Form ADV)
 - Broker / dealer (FINRA)
 - Custodian (SAS 70)
 - Investment consultant (SEC Form ADV)
- ▶ **Set maximum loss constraints**
- ▶ **Process and authority**
 - Establish for policy exceptions and credit downgrades

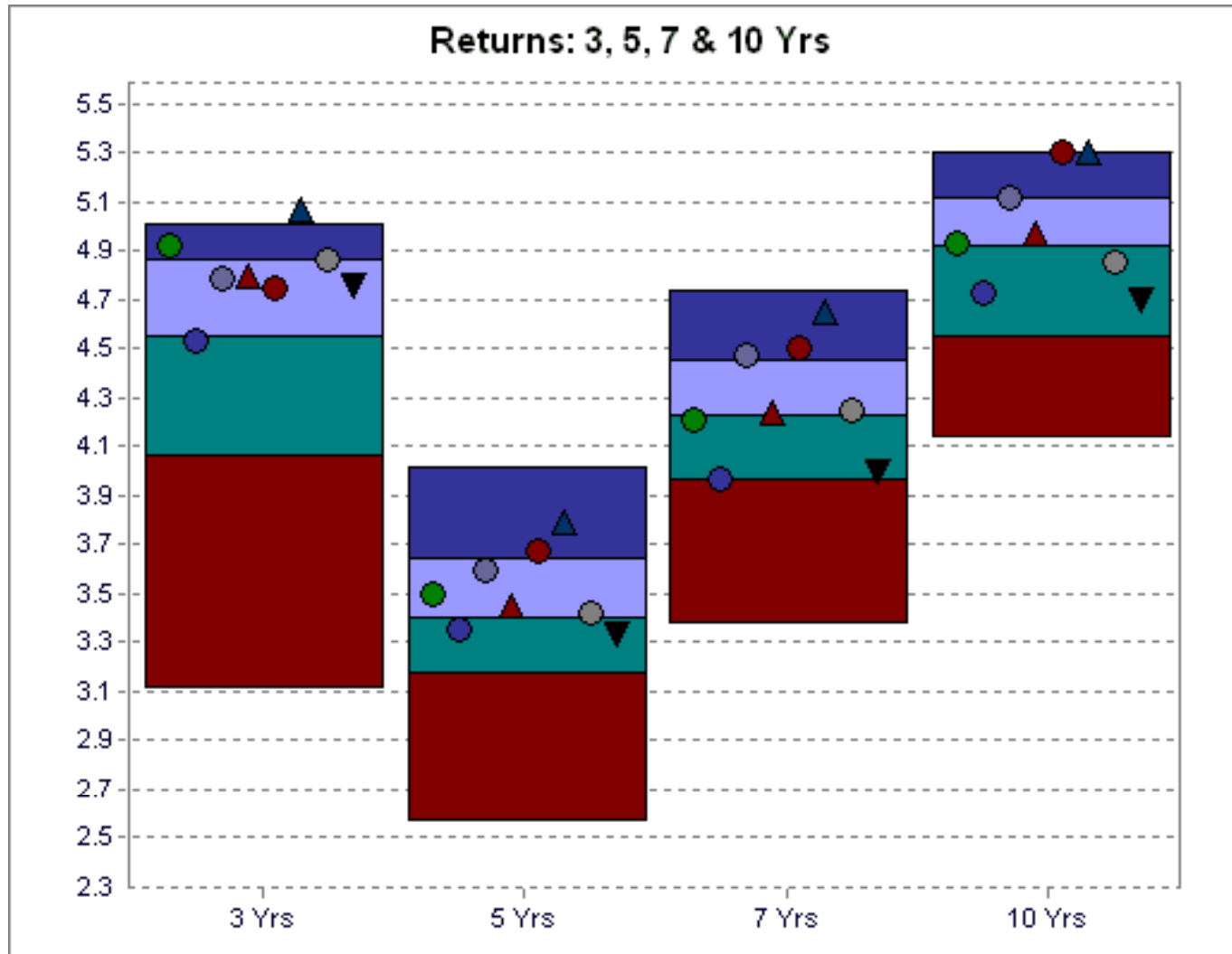
- ▶ **Who is guarding your money and is the book of record?**
 - Safekeeping
 - Custody
 - Securities lending and reinvestment
 - SAS 70
 - Fidelity bonds
 - E & O insurance
 - Insurance against computer fraud
 - In bankruptcy what happens to your securities?



▶ Who is investing your money?

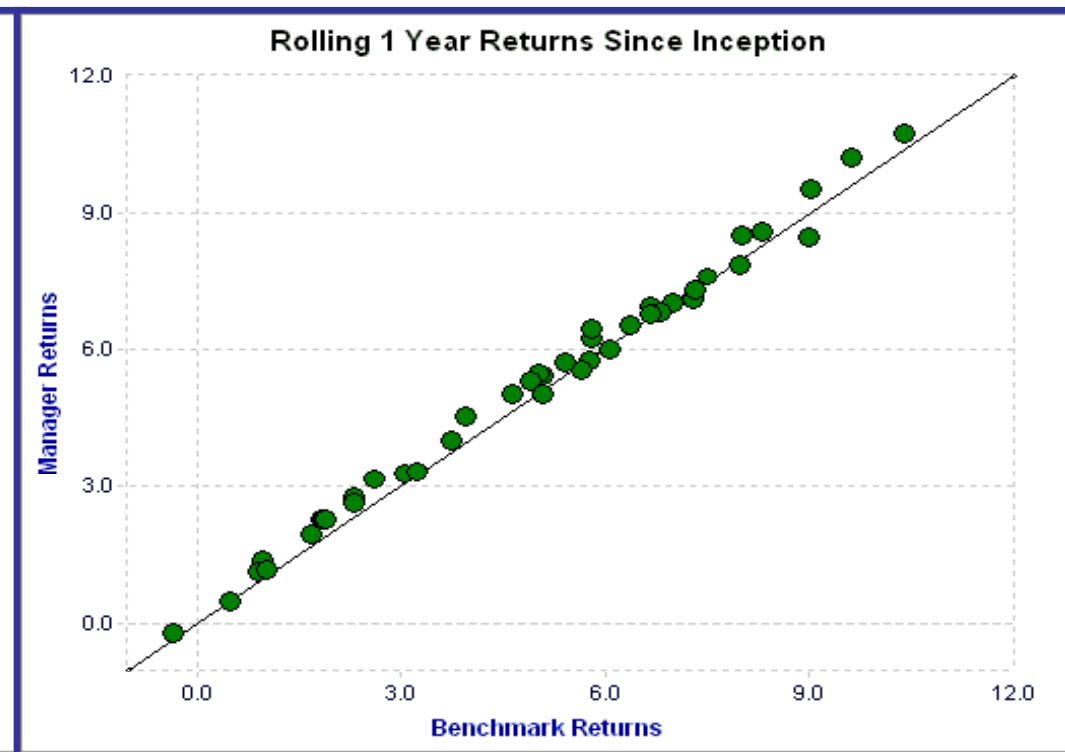
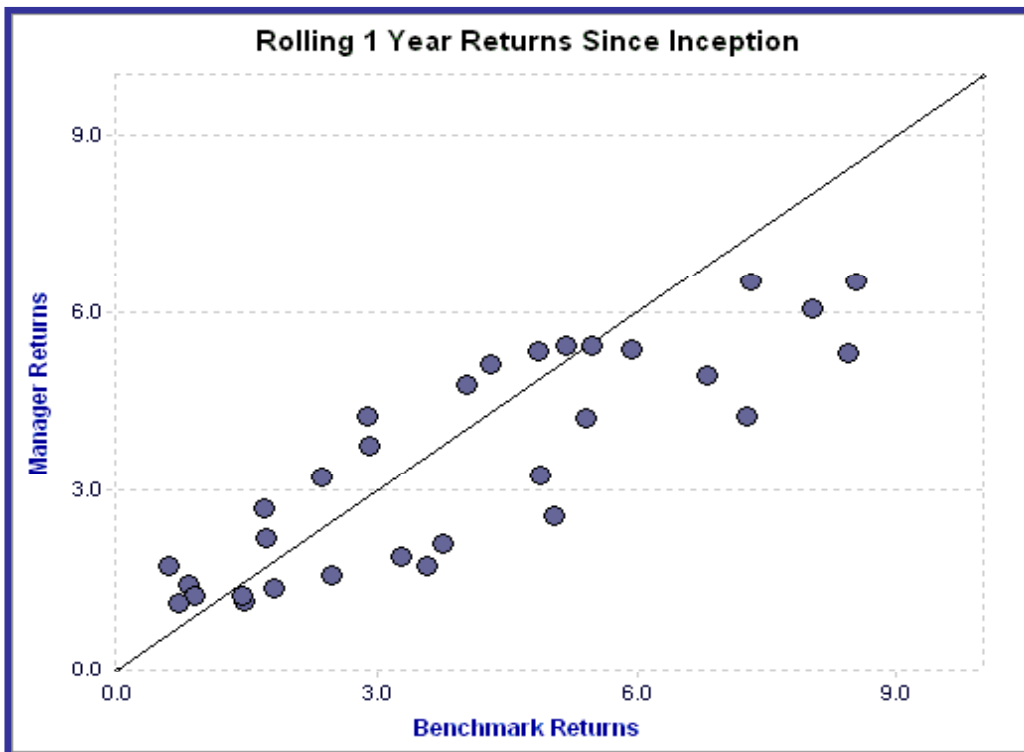
- SEC Registered investment advisors
 - SEC Form ADV
- FINRA broker or broker/manager
 - FINRA Broker/Check
- Customer complaints, pending litigation, conflicts of interest
- Discretionary authority
- Non discretionary authority
- Introducing broker taking additional spread





Manager A Inconsistent vs Benchmark

Manager B Consistent vs Benchmark



- ▶ Convenient technology
 - Deliver timely information and efficient execution
 - Broad array of money fund choices
 - May be inadvertently concentrating all the money through one conduit

- ▶ Financial soundness of the clearing agent or portal
 - Bear Stearns Portal – JP Morgan rescue

- ▶ Information accuracy presented
 - Assets under management
 - Timeliness of current holdings reports
 - Criteria for placing a money fund on the portal

- ▶ How does the portal send the money to the money fund?
 - Directly to the fund – investor to the fund
 - Through an omnibus account and then to the fund

- ▶ In the case of a clearing agent failure
 - Some portals show the investor names to the money fund
 - Those investors could redeem their money
 - Some portals do not disclose the investor names to the money funds
 - More difficult for the investor to redeem their money without tracing back the transaction and showing documentation of the trade and proving ownership

- ▶ **Portfolio Composition (Euro, Sterling, USD)**
 - Corporate Bonds
 - Commercial Paper
 - Asset Backed Securities
 - Floating Rate Notes
 - Time Deposits
 - Variable Rate Notes
 - Treasury Notes
 - Certificates of Deposits
 - Tri-Party Repurchase Agreements
 - Sovereign ECP

- ▶ **Constant Net Asset Value (NAV) reflects Yield**
- ▶ **Minimum credit quality: A**

▶ **Portfolio Composition (Euro, Sterling, USD)**

- Asset Backed Securities
- Agency Notes and Bonds
- Commercial Paper
- STIF
- Corporate Bonds
- Floating Rate Notes
- Eurobonds
- CMO
- MBS
- Forwards
- Futures

▶ **Fluctuating NAV reflects Total Return**

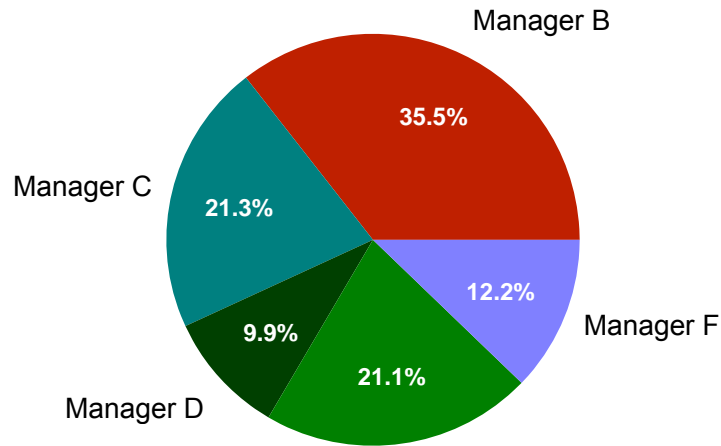
▶ **Minimum Credit Quality: BBB**

▶ **Effective Maturities: 3 Years**

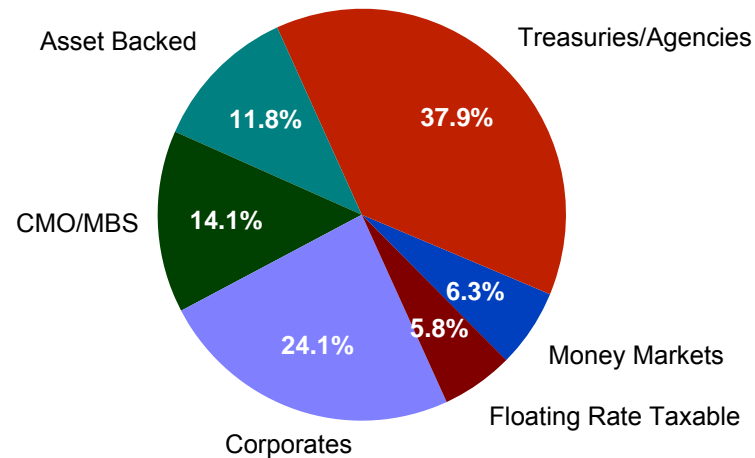
- ▶ Quarterly meeting with third party investment consultant (RIA) to review all portfolios and with each external manager
 - Face-to-face meeting at least once every 6-months
 - Review performance for quarter, YTD and since inception
 - Discuss macro economic assumptions impacting strategy
 - Review strategy or changes to strategy
 - Opportunities and resulting realized losses
 - Potential changes to investment policy
 - Changes in portfolio or firm management personnel
 - Affiliations with hedge funds
 - Manager and personnel changes
- ▶ Formal agenda sent to managers in advance of meeting and managers required to provide presentation materials

Asset Distribution by Manager

Percentage of Portfolio Market Value



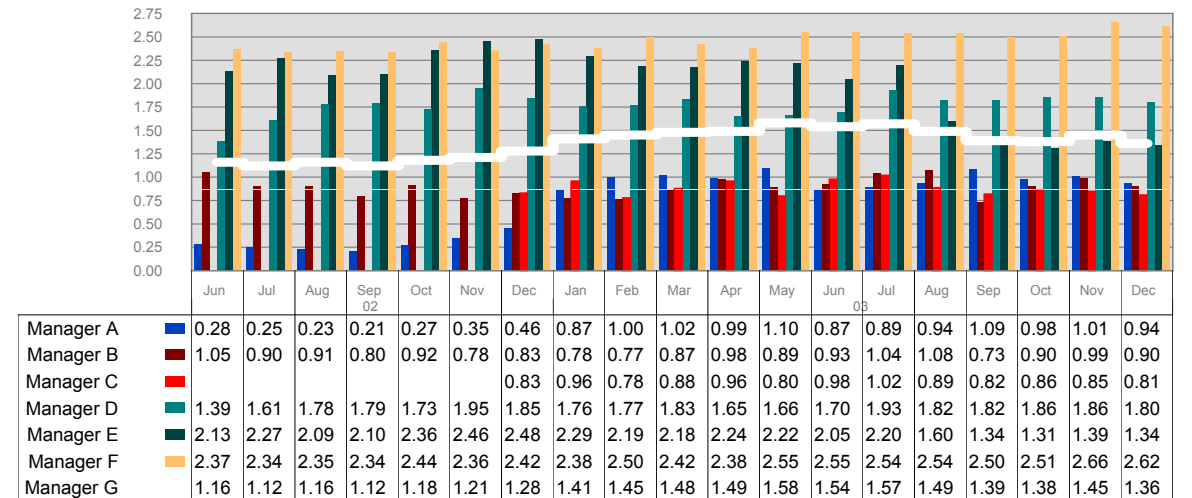
Consolidated Sector Distribution



Sensitivity Analysis

Change in Interest Rates	No Change		Increase 50 bps.		Increase 100 bps.		Increase 150 bps.	
	6 mos	12 mos	6 mos	12 mos	6 mos	12 mos	6 mos	12 mos
Portfolio								
Horizon Return	1.60%	3.20%	1.13%	2.25%	0.65%	1.30%	0.18%	0.35%
Income Return	1.60%	3.20%	1.60%	3.20%	1.60%	3.20%	1.60%	3.20%
Market Return	0.00%	0.00%	-0.48%	-0.95%	-0.95%	-1.90%	-1.43%	-2.85%
Beginning Fair Market Value	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Ending Fair Market Value	\$101,600	\$103,200	\$101,125	\$102,250	\$100,650	\$101,300	\$100,175	\$100,350

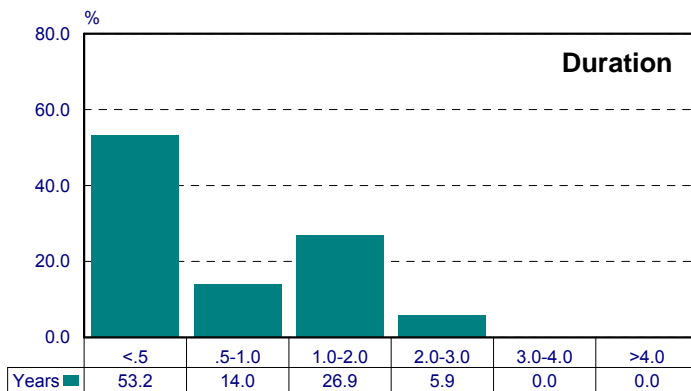
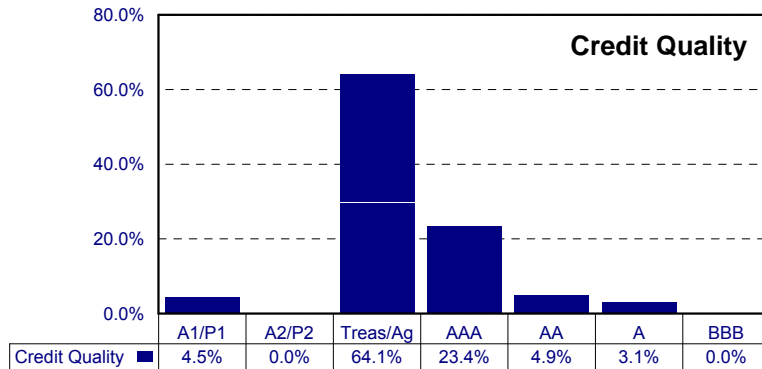
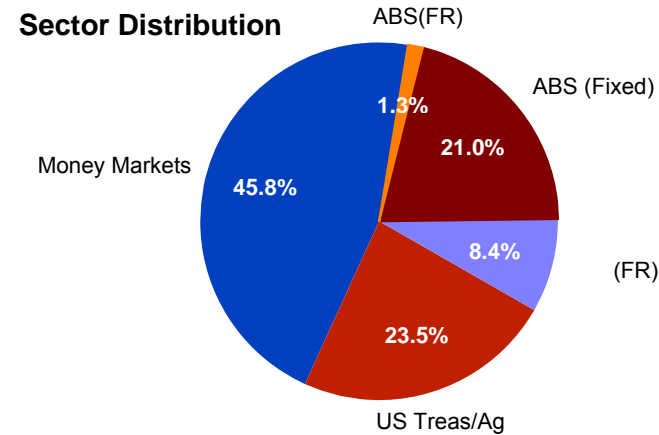
Duration - Manager Comparison



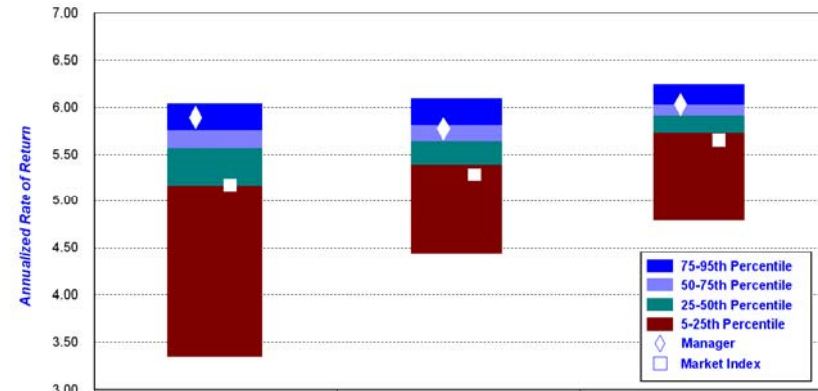
Simulated data. Not representative of Client holdings or investments.



Manager A as of June, 2004	
Portfolio Market Value (\$000)	727,662
Average Credit Quality	Aa2
Average Duration (Years)	0.98



Universe Comparison Risk Adjusted Returns



	3 Years	5 Years	7 Years
Maximum	6.10	6.20	6.37
75th Percentile	5.89	5.94	6.15
Median	5.70	5.77	6.03
25th Percentile	5.28	5.52	5.85
Minimum	3.46	4.54	4.90
Manager E	6.05	5.82	6.15
Market Index	5.28	5.37	5.78
Custom Benchmark	5.88	5.77	6.08

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Red Flags

- ✎ Poor trade execution or panic selling
- ✎ Drastic change in portfolio quality
- ✎ Always reacts after the news, not anticipatory
- ✎ Frequent downgrades or credit watch
- ✎ Increased concentrations by issuer
- ✎ Portfolio manager has emotional responses
- ✎ Responses to client inquiries are cleared through compliance or legal
- ✎ Exceptions to policy
- ✎ High transaction volume or frozen portfolio
- ✎ Use of reverse repos, CDS, IPS
- ✎ Dramatic duration changes
- ✎ Change in weight average life or extension of expected payback
- ✎ Negative convexity
- ✎ Double digit yields to maturity on security holdings
- ✎ Missing coupons on reports
- ✎ Stale pricing
- ✎ ***Portfolio manager makes excuses and blames client***

