

STATE STREET®

**Peak Performance Highway:
Risk Management Strategies for Wealth
Management Practices**

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Risk Management



The rapidly changing market of complex asset structures, compliance and regulatory requirements magnifies the importance of Risk Management.

The goal is to identify, measure and manage risks in a timely manner.

The Black Swan: The Impact of the Highly Improbable ***Nassim Nicholas Taleb***

- > “Forecasting is not just at the heart of Wall Street, but it’s something each of us does every time we make an insurance payment or strap on a seat belt.”
- > The main idea is not to attempt to predict Black Swan events, but to build robustness to the negative ones, while being able to exploit positive ones.
- > Banks and trading firms are very vulnerable to hazardous Black Swan events and are exposed to losses beyond that predicted by their defective models.
- > A Black Swan event depends on the observer—a Black Swan surprise for the turkey is not a Black Swan surprise for the butcher, hence his idea is to "avoid being the turkey" by finding out where one may be exposed to being a turkey and "turn the Black Swans white".

A digression on “sigma”

- > **A “1-sigma” event is a one standard deviation move, a “2-sigma” event is a two standard move, and so forth.**

- > **When investors describe events using sigma, they are implicitly assuming that returns follow a normal, “bell curve” distribution.**

- > **On average, we would expect:**
 - a 1-sigma event to occur on 1 trading day out of 8,
 - a 2-sigma event to occur on 1 trading day out of 44, and
 - a 3-sigma event to occur on 1 trading day out of 741.

- > **In the summer of 2007, a high-profile hedge fund announced that it had experienced two 25-sigma events in a row.**

How often would we expect a 7-sigma event to occur?

- A. Approximately 1 trading day in 300 years
- B. Approximately 1 trading day in 300,000 years
- C. Approximately 1 trading day in 3,000,000 years
- D. Approximately 1 trading day in 3,000,000,000 years**

Putting N-sigma Events in Perspective

- > **“A 5-sigma event corresponds to an expected occurrence of less than just one day in the entire period since the end of the last Ice Age,” or approximately 1 day every 14,000 years.**
- > **“A 7-sigma event corresponds to an expected occurrence of just once in a period approximately five times the length of time that has elapsed since multi-cellular life first evolved on this planet,” or approximately 1 day every 3 billion years.**
- > **An 8-sigma event corresponds to an expected occurrence of once in “a period that is considerably longer than the entire period since the Big Bang.”**
- > **“The probability of a 25-sigma event is comparable to the probability of winning the lottery 21 or 22 times in a row.”**

Single-Family Offices' Top Ten Biggest Challenges

2008 Family Wealth Alliance SFO Study

1. **Sustainability/succession/keeping family together**
2. **Markets/investment returns/managing assets**
3. **Human capital**
4. **Interacting with family members/conflicts/demands**
5. **Charging for services/justifying costs and value added**
6. **Educating/preparing next generation**
7. **Cash management/liquidity**
8. **Technology**
9. **Client reporting**
10. **Relations with operating company**

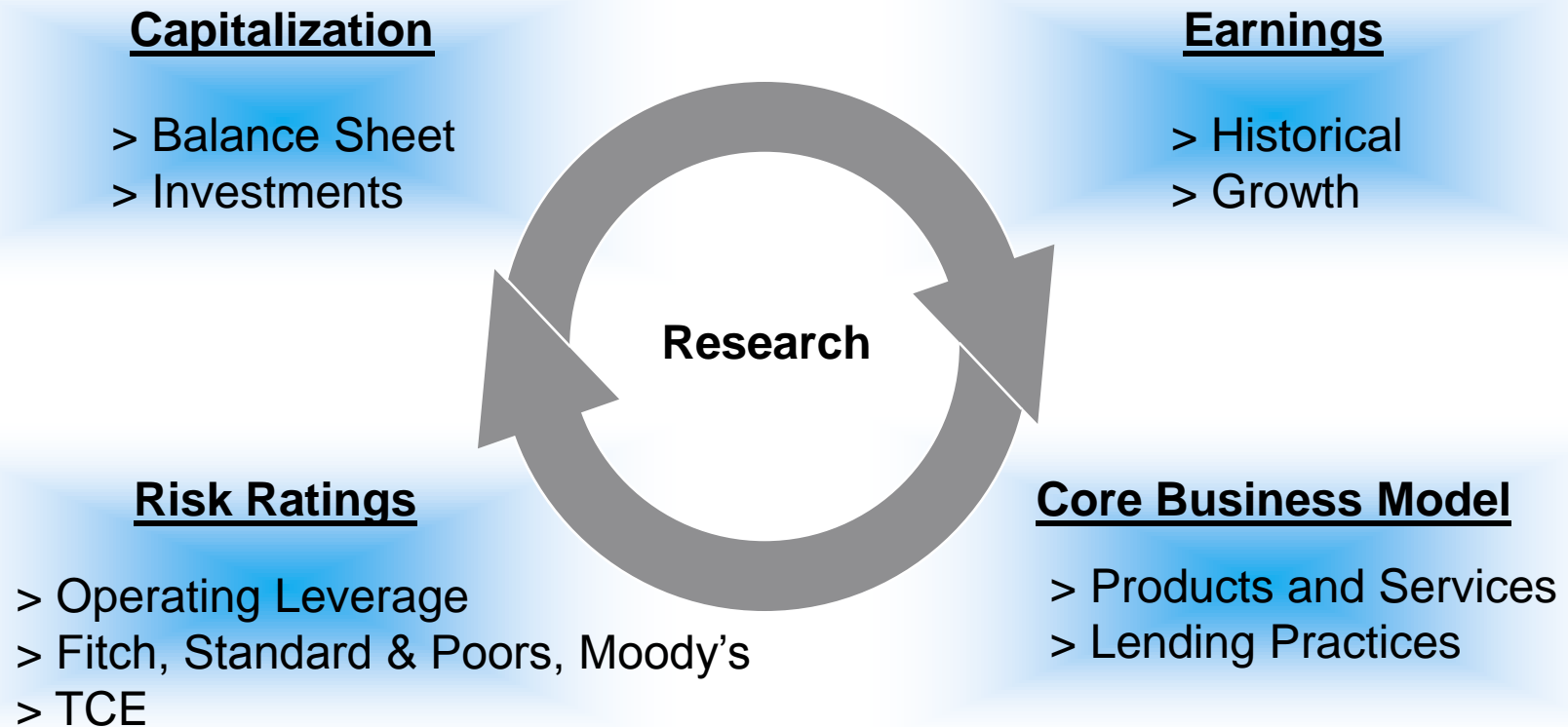
Multifamily Office Top Ten Biggest Challenges

2009 Family Wealth Alliance MFO Study

1. **Human Capital**
2. **Business Development**
3. **Managing Growth**
4. **Technology, Client Reporting**
5. **Marketplace Awareness**
6. **Profitability**
7. **Managing Client Expectations**
8. **Turmoil in the Economy and Markets**
9. **Operational Efficiencies**
10. **Compliance**

Counter Party Risk

What should you look for when selecting an outsourcing firm to ensure financial stability?



How do you gain effectiveness and efficiencies in your organization's operation?

Operational Risk Prevention

Straight Through Processes & Automation

Reduce duplicate entry

Reduce manual touch points

Important for time sensitive, high risk transactions such as cash movement, trading and corporate actions

Strong Procedures and Controls

Documentation & Training

Segregation of Duties to Create „Checks & Balances“

Management Approval Workflows

Customer Authorization Reviews and Call Backs (FTTOP)

Process Improvement Initiatives

Oversight of Business Processes

Risk Escalation Policy

Risk Re-occurrence Prevention

Independent Self Testing

External Audits – SAS70

Data & Technology Risks

Programs that Ensure Data Protection

- Mass Privacy, GLBA
- Procedures, Controls and Training
- Masking of data

Validation of Accurate Access

- Controls and Reviews for Set Up
- Periodic reviews
- Procedure for departing employees

Authentication Methods for Assessing Systems

- Multi-factor or Dual-factor Authentication
- Ensuring flexibility/user friendly despite strong technology access controls

Secure Transfer of Data

- Email/File Encryption
- File Transfer Procedure (FTP)
- Secure Portal for Sharing Documents

Security

Data & Technology Risks

How can data be protected?

- > Programs that Ensure Data Protection
 - Mass Privacy, GLBA
 - Procedures, Controls and Training
 - Masking of data

- > Authentications Methods for Accessing Systems
 - Multi-factor Authentication/Dual-factor Authentication
 - Ensuring flexibility/user friendly despite strong technology access authentication controls

- > Validation of Accurate Access
 - Controls and Reviews for Set Up
 - Periodic reviews
 - Procedure for departing employees

- > Secure Transfer of Data
 - Email/File Encryption
 - File Transfer Procedure (FTP)
 - Secure Portal for Sharing Documents



Compliance & Regulatory Risks

Stay Current on Applicable Laws and Regulations

- > Focus and Structure on Compliance and Regulatory Risk
 - Corporate level
 - Business specific level

- > Forward Looking Approach to Compliance and Regulation
 - Thought Leadership
 - One step ahead
 - Keeping clients aware of upcoming changes

- > Active participation with regulators
 - SEC
 - FDIC
 - Dept of labor
 - Auditing Firms



How will the next Black Swan event shape your business and client base?

