Fiduciary Fraud Risk

Prevention and Detection

Strictly private and confidential

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Agenda

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Types of Fiduciary Fraud

Definitions

Fraud	Any knowing misrepresentation of the truth or concealment of a material fact that results in a gain to oneself and/or loss to another
Fiduciary	Involving trust, especially with regard to the relationship between a trustee and a beneficiary. A fiduciary is responsible for maintaining a relationship of trust. Others relationships include: A lawyer and a client and A agent and principal.
Fiduciary Fraud	Type of felony violation that occurs when a financial institution or advisor purposefully deceives a customer or client and/or when the financial representative acts in his own interest at the detriment of his client.

Fiduciary duties

- **Duty of Loyalty/Good Faith** – to invest and manage trust or estate assets solely in the interest of the beneficiaries without personal economic conflict.
- **Duty of Prudence/Care** – to exercise reasonable care and skill in the management of assets as a prudent investor would do.
- **Duty of Impartiality** – to not favour any beneficiary over another.
- **Duty of Disclosure** – to provide complete and accurate information as to the property and transactions in the trust or estate.

Fiduciary Fraud Risk

- Fiduciary Fraud risk occurs when a trustee/agent is not optimally performing the above duties in the beneficiary's best interests.
- The trustee need not be using the beneficiary's resources for his/her own benefit; it could be a risk that the trustee is not achieving the best value for the beneficiary. For example, a situation where a fund manager (agent) is making more trades than necessary for a client's portfolio is a source of fiduciary risk, because the fund manager is slowly eroding the client's gains by incurring higher transaction costs than are needed.

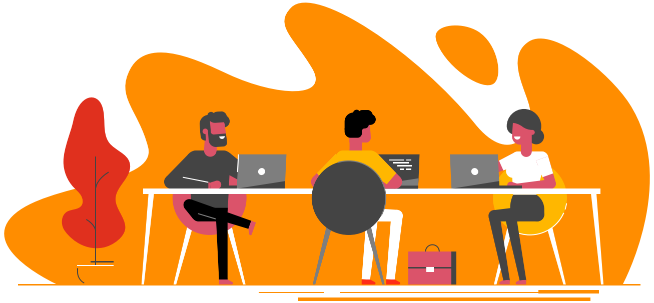
Type of Fiduciary Fraud

Securities fraud - Under the misappropriation theory of insider trading, a fiduciary's undisclosed, self-serving use of a principal's information to purchase or sell securities, in breach of a duty of loyalty and confidentiality, defrauds the principal of the exclusive use of that information.

Bank fraud - Violation of a fiduciary duty is not an essential element of bank fraud. But a prosecution theory based on reckless disregard of fiduciary duties is sufficient to ground an indictment and support a conviction for bank fraud

Common Law Fraud, Federalized by Mail and Wire Fraud Laws - Criminal liability for mail and wire fraud can turn on the existence of a fiduciary relationship.

Embezzlement - Fraudulent appropriation of property by a person to whom such property has been entrusted, or into whose hands it has lawfully come. It differs from larceny (theft of personal property) in the fact that the original taking of the property was lawful, or with the consent of the owner, while in larceny the felonious intent must have existed at the time of the taking



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Regulatory View

Different Regulatory Rules

Regulators are concerned that there is a **lack of transparency** around the standard under which an **advisor is providing advice and how he/she is being compensated**. This is not surprising since advisors operate under multiple standards with a majority of asset flows falling under a 'suitability' rather than 'fiduciary' standard.

- The **40-year-old** ERISA (Employee Retirement Income Security Act) rule is overdue for change - sets minimum standards for most voluntarily established retirement and health plans in private industry to provide protection for individuals in these plans.
- The **1,000-page** DOL proposal was the sum of years of effort to reign in and regulate the retirement plan advisory business provided by brokers.
  - **Fifth and Tenth Circuits** ordered the DOL to vacate the rule, declaring it unreasonable and "an arbitrary and capricious exercise of administrative power."
  - **$4.7 billion** spent (in start-up costs to comply with the anticipated DOL rule) by the brokerage industry to comply with a now lifeless rule.
- SEC's regulation Best Interest
  - **Custom-tailored sheep's clothing** for Brokerage and sales world, so that the predatory sales activities could be carried out more efficiently
- SEC's weak regulatory hand has led to state initiatives starting with Nevada and New Jersey and followed by New York and Maryland.

Fiduciary Standard and Suitability Standard

- In the financial services industry there are two primary parties who can offer investment advice
  - **Registered Investment Advisors (RIA)** and **investment brokers**. The investment advice you receive from these parties may be similar but the key difference is in the standards each party is bound to uphold.
- These two regulatory standards are the **Fiduciary Standard** and the **Suitability Standard**.
  - A licensed Fiduciary, such as an RIA, has a legal obligation to act in the clients' best interest.
  - Conversely, brokers and insurance agents (who frequently use pseudonyms such as financial representative or consultant, registered representative, client or wealth advisor) are held to a lesser measure called the Suitability Standard, which simply requires the broker to sell investments they believe are suitable for their clients, not necessarily what is best for the client.
- To add an additional layer of confusion for investors, in a hotly debated ruling by the Department of Labor (DOL), investment brokers were expected to provide fiduciary level advice and act in the best interest of their client-but only when advising on retirement accounts. Client assets held with brokers outside of retirement accounts will still be regulated under the lesser suitability standard.

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Current Fiduciary Fraud Pattern

Securities Fraud

High Yield Investment Fraud

- Characterized by promises of high rates of return with little or no risk.
- May involve various forms of investments (e.g. securities, commodities, real estate, precious metals, etc.)
- "Too good to be true" investment opportunities.
- Perpetrators may contact victims by telephone, e-mail, or in person, generally unsolicited.

Ponzi & Pyramid Schemes

- Use money collected from new victims to pay the high rates of return promised to earlier investors.
- Payouts give the impression of a legitimate, money-making enterprise behind the fraudster's story.
- In reality, investors are the only source of funding.

Advance Fee Schemes

- Victims advance relatively small sums of money in the hope of realizing much larger gains. Gains never materialize because there is no legitimate underlying investment.
- To participate a particular investment opportunity, victims must first send funds to cover "taxes" or "processing fees."
- After victims send the "fees," the perpetrators appropriate the funds and never deliver on the investment.

Other Types

- Foreign Currency Fraud, Broker Embezzlement, Hedge Fund Related Fraud, Late Day Trading

Types of Bank Fraud

1. Accounting fraud - overstate sales and income
2. Demand draft fraud – removing DD leaves also includes remotely created check fraud
3. Uninsured deposits – Uninsured bank soliciting public deposits "Chase Trust Bank"
4. Bill discounting fraud - paying upfront for bills
5. Duplication or skimming of card information
6. Check kiting – exploiting “the float” from bank
7. Forged or fraudulent documents – conceal missing cash by creating fake documents
8. Forgery and altered cheques
9. Fraudulent loan applications – Loans for those with bad credit history, robo-sign
10. Fraudulent loans – to non existent business
11. Empty ATM envelope deposits at ATM
12. The fictitious 'bank inspector’ – help catch employees stealing money
13. Identity theft – Obtain DOB certificate with just parents name and date/location of birth
14. Money Laundering – legit source for money
15. Booster cheques – Bad check to ”bust-out”
16. Wire Transfer fraud – SWIFT network
17. Phishing/Internet fraud - e-mail impersonating a bank, auction or payment site to collect info
18. Prime bank fraud - guaranteed offshore investment on fictitious financial instruments
19. Rogue traders - unauthorized trading to recoup the loss incurred in earlier trades
20. Stolen checks – from mailrooms, post offices

Recent cases of interest to Fiduciaries

April 2019 - Stancik, a former Voya Financial representative, is now serving a 65-month prison term for misappropriating almost $544,400 from four customers between 2003 and 2015, and forging a check made payable to one of those clients.

February 2019 - Kniss, a former financial advisor from UBS and Piper Jaffray, started Iris Capital in October 2010. He was sentenced to three years in prison for a $4.3 million fraud scheme involving real estate-based investments in four funds promising 8-12%.

January 2019 – Barlett, a financial advisor of Southport, was sentenced to eight years for using £4.5m of his victims' money to fund an extravagant lifestyle of foreign travel, top hotels and gambling. The fraud involved investing people's money, pensions and often life savings into what they thought was a safe investment account with interest. He created a sole trader account with the same name as the company he worked for and paid himself the money.

November 2018 – Simanski, a investment advisor at Next Financial Group, raised over $3.9 million from 27 of his brokerage customers and investment advisory clients, to invest in a "tax free" fixed rate investment, a rental car company, or one of two coal mining companies in which Simanski claimed to have an ownership interest. Simanski largely used the money to repay other investors and for his personal use.

November 2018 – Polese, a former Morgan Stanley advisor, was sentenced to five years in prison for stealing $500,000 from clients to pay off credit card bills and his children's college tuition. Funds also were purportedly used for a wind farm investment. Two months later, Polese's former colleague, ex-Morgan Stanley advisor Peterson, was sentenced to 20 months in prison. Peterson used the funds for wind farm project that a friend had decided to start.

May 2019 - Wu, Morgan Stanley broker, allegedly introduced a Chinese family to William "Rick" Singer, who unethically facilitated college admission for 750 families. The family paid Singer $6.5 million to secure a spot for their child at Stanford University. Yang, an Oppenheimer & Co. advisor, allegedly introduced a Chinese family to Singer for help getting their daughter into Yale University, for which the family allegedly paid $1.2 million.

Recent cases of interest to Fiduciaries (continued)

Matter of the Estate of Anne S. Vose v. Lee, 390 P.3d 238 (Okla. Jan. 17, 2017) Decedent's executor had a fiduciary obligation to the surviving spouse to file an estate tax return to elect portability of the deceased spousal unused exclusion amount even though under a premarital agreement the surviving spouse was not an heir or distributee of the decedent's estate.

Du Pont v. Wilmington Trust Company, C.A. No. 12839-VCS (Del. Ch. Oct. 6, 2017) Delaware Chancery Court refuses to grant trust beneficiary's petition to remove the trustee of five directed trusts when the grounds for removal did not relate directly to matters of trust administration.

Saccani v. Saccani, No. C078958, 2016 WL 6068962 (Cal. Ct. App. Oct. 17, 2016) California court interprets a shareholder agreement to permit a shareholder's pre-death transfer of shares to a revocable trust after that shareholder gave another shareholder the option to purchase the shares after the transferring shareholder's death, even though the shareholder agreement itself only authorized share transfers to trusts for the benefit of a shareholder's descendants.

Gray v. Binder, 805 S.E.2d 768 (2017) The Commissioner of Accounts had the authority to hear a petition filed by the administrator of an estate for advice and guidance regarding the interpretation of the will and the determination of the proper heirs of the decedent.

Lawson v. Collins, No. 03-17-00003-CV, 2017 WL 4228728 (Tex. App. Sept. 20, 2017) An arbitration award is final and binding on all participating parties and has the effect of a court order, regardless of whether all parties agree to the terms of the arbitration award. Absent evidence of statutory grounds for overturning such award, or evidence that such award is the result of fraud, misconduct or gross mistake, an arbitration award will be affirmed and confirmed.

Ajemian v. Yahoo! Inc., 84 N.E. 3d 766 (Mass. 2017), petition for cert. docketed sub nom. Oath Holdings, Inc. v. Ajemian (U.S. Jan. 19, 2018) (No. 17-1005) The Stored Communications Act (SCA) does not prevent Yahoo! from voluntarily disclosing emails from a decedent's account to the decedent's personal representatives at the request of the personal representatives; it remains to be settled whether the SCA compels Yahoo to do the same.

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How to Prevent?

Established prudent investment practices involving Fiduciaries

Step 1: Organize

- Identify governing rules that apply to their situations.
- Define the roles and responsibilities of all parties involved in the process.
- If investment service providers are used, then any service agreements should be in writing.

Step 2: Formalize

- Create investment program's goals and objectives.
- Identify factors such as investment horizon, an acceptable level of risk and expected return.
- Create the framework for evaluating investment options.
- Create investment policy statement.

Step 3: Implement

- Select specific investments or investment managers to fulfill the requirements
- Design due diligence process to evaluate potential investments.
- Identify criteria used to evaluate and filter through the pool of potential investment options.

Step 4: Monitor

- This is the most time consuming and also the most neglected part of the process.
- Some fiduciaries do not sense the urgency for monitoring if they got the first three steps correct.
- Do not neglect any of the responsibilities as they are equally liable for negligence for every step.

Predictive Analytics Framework

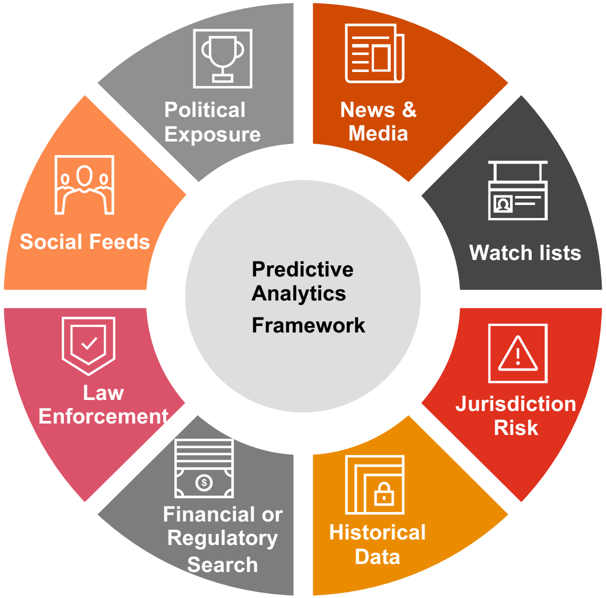
The fundamental blocks of our next generation monitoring target operating model consists of: **Real World Events Patterning, Synthetic Network, Contextual Immersion, and Predictive Analytics.**

1 Real World Events Patterning

This concept relates to analyzing the various sources of information & identifying correlations, sentiment analytics and structured/unstructured relationships

2 Synthetic Network

This is the knowledge source containing the correlations between various data point



3 Contextual Immersion

With Synthetic Network as its knowledge source, this concept relates to analyzing customer originated transactions relative to other information

4 Predictive Analytics

This concept focuses on determining the overall risk of a given entity – customer, account or a transaction

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How to Detect?

Fraud technology landscape

The Fraud Technology landscape can be organized and categorized into solution areas along the fraud lifecycle:

1. Identity and Access Management

Customer/Agent Screening

Use of internal and third party data to perform due diligence and certification on potential agents during the onboarding process.

- Experian
- Neustar
- Emailage

Multi-Factor Authentication

Multiple factors including biometrics can be utilized in conjunction to authenticate an individual.

- Transmit Security
- TrustStamp
- EyeVerify

Payee Screening

Validate account owners and beneficiaries during the account linking process, prior to transacting.

- Early Warning
- Fiserv CashEdge
- Yodlee

Customer Profiling

Create baseline models of customer behaviors across different product lines and channels to inform out of pattern behavior detection.

- Feedzai
- SAS
- R

2. Surveillance and Monitoring

Surveillance and Monitoring

Identify known patterns of fraud based on rules to generate automated alerts on suspicious transactions.

- Actimize
- Guardian Analytics
- FICO
- Fiserv

Online Monitoring

Monitor mobile devices and online behaviors to identify suspicious or out-of-pattern activities and leverage consortium intelligence.

- ThreatMetrix
- Iovation
- NuData
- Kount

3. Case Management

Referral Tool

Allow employees and third parties to escalate known or suspected fraudulent activity to investigation units.

- Actimize
- Archer
- IBM BPM

Case Management

Enable investigators to manage and investigate fraud cases efficiently and effectively.

- Actimize
- Pega
- IBM Case Manager
- Appian

4. Reporting, Optimization & Analytics

Analysis and Investigation

Empower power users with capabilities to perform root cause analyses as well as identify emerging fraud threats.

- SAS
- ThetaRay
- Periscope data
- Neo4j +Linkurious

Innovation

Development of new fraud models and techniques to prevent and detect fraud.

- SAS
- R
- Feedzai
- Data Robot

Reporting

Dashboard and reporting capabilities provide management with visibility of fraud function performance and KPIs/metrics.

- Business Objects
- Tableau
- Spotfire

Optimization

Utilize advanced analytics to optimize existing rules and systems to reduce false positives and increase coverage.

- SAS
- R
- Rapidminer
- Data Robot

Portfolio Analysis

Furthermore, it is critical to supplement Predictive and Network Analytics with Portfolio Analytics. Conducting portfolio analysis will enable you to proactively address areas of potential risk (e.g. car dealerships)

Customer Portfolio 1

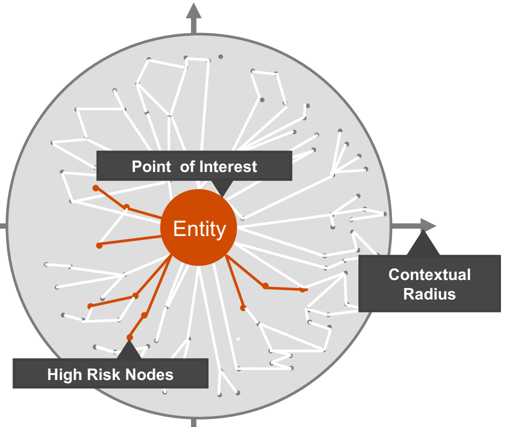
Customer portfolios and transactions are broken down into various attributes

Originator	Beneficiary	Amount
Originator Country	Beneficiary Country	Date and Time
Originator Address	Account Number	Other Country
Inter. Entity	Inter. Country	FI Information
Comments	ID Code	Messages
Instructions	Currency	Other

Wire message gets broken down into blocks

Synthetic Network Relative Positioning 2

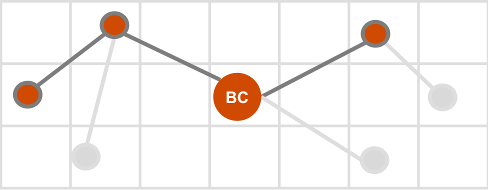
Synthetic Network Infrastructure



Is it suspicious in this context?

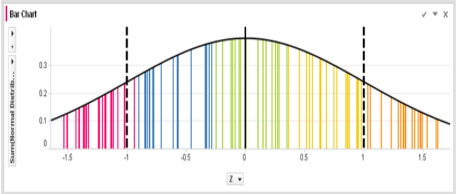
Meaningful Deviation and Predictive Analytics 3

# of High Risk Nodes - Shortest Distance



Predictive Analytics by Relative Positioning

Contextual Deviation from the Norm



Machine Learning in Risk Optimization

Various Machine Learning techniques can be applied to existing system which can enable real time risk scoring and thus reduce dependency on batch based back testing

Data Sources

- Product Processors Transactions
- Customers and Accounts
- Other Sources - Reference Data

Analytics Environment

- Segments
- Rules Engine
- Thresholds

Machine Learning

- Descriptive Statistics
- Supervised and Unsupervised Learning
- Risk Score
- Peer group Analysis
- Break-point Analysis

Output

- Various reports on anomalies, clustering, predicted suspicion score etc.
- Visualization to identify risk drivers at various levels and role based views to facilitate decision making

- Data sources can feed directly to the analytics environment
- Unstructured data can also be incorporated and used for detecting suspicious behavior as a result of Machine Learning techniques

- Descriptive statistics can be generated on the available numerical data. These statistics can be used as input by machine learning techniques
- Supervised learning is based on known or defined outputs. Risk score can be developed by combination of different attributes from segments, descriptive statistics, rules and thresholds
- Unsupervised learning is used to identify pattern or to detect changes in behavior that could be identified as money laundering suspicion

- Depending on the type of Machine Learning technique applied various reports like clustering, break-point analysis can be generated
- These reports can be used to identify anomalies and risk scoring alerts or transactions

Thank you

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