Big Data and Security

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Introduction to Enron

Enron Introduction

History of company

What they did

Where was the wrongdoing

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My Own Readings

- McClean and Elkind *The Smartest Guys in the Room*:
  - A nicely written story of Enron
- Palepu and Healy (2003) *The Fall of Enron*:
  - A general take on the story by economists, with a focus on the details of the institutions

Beginnings

- Enron formed from the merger of Houston Natural Gas and InterNorth in 1985
- It began primarily focused on natural gas
    - Owned pipelines
    - Purchased natural gas from producers
    - Sold to power plants
- At this time, natural gas prices were regulated
    - Gas was sold in long term fixed price contracts
    - You either bought the gas or paid anyway

Deregulation

- Before deregulation (early 1980s), gas pipeline companies negotiated “take-or-pay” contracts with gas producers and power companies
  - The gas supplier was guaranteed an ability to sell into the pipeline at a given price
  - If the pipeline owner didn’t take the gas, they had to pay the agreed price anyway
- After deregulation (late 1980s), arrangements could be more flexible
  - Mostly, gas was sold at “spot” prices-a price that changes all the time and reflects current market conditions
- Enron
  - Under deregulation they started storing and trading gas-by having the ability to deliver gas from storage, they could buy and sell opportunistically
  - This should have the overall effect of stabilizing prices
  - This was very profitable for them - they were one of the early, sophisticated players in this sort of trading

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Expansion

- Enron seemed very good at the combination of managing gas supplies and trading in gas
- They wanted to expand into other industries where there were spot prices and good understanding and control of the supply chain allowed them to buy low and sell high
- So they had an operations plus trading strategy
- Jeffrey Skilling, the CEO from February 12, 2001 until August 14, 2001, argued that they succeeded at trading because operating gave them information
- Enron expanded into electricity, coal, steel, paper, pulp, water, and broadband internet

Expansion was Unsuccessful

- It took top Enron executives perhaps a while to recognize it, but they weren’t that successful in all these other businesses
- But they were able to seem successful by various accounting schemes

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Collapse

- August 2000 - Shares at all time high of $90
- August 2001 - CEO Jeff Skilling resigns
- October 2001 - Enron announces $638M Q3 loss and $1.2B write down of equity; SEC launches investigation into finances
- November 2001 - Enron restates Q3 losses again; discloses $690M debt due Nov 27; stock below $1
- December 2, 2001 - Enron declares bankruptcy
- March 2002 - Arthur Andersen indicted

How Did This Happen?

- Palepu and Healy: many reasons
- Accounting history and bad audits
- History
  - FTC ruled to change rules to increase competition among auditors
  - Investors in companies with accounting problems only need to show that they relied on stock price reflecting accounting, not accounting per se, to claim damages
- Effect
  - Firms rewarded leaders who could maintain business with close relationships, which made oversight difficult
  - Firms focused on mechanical accounting standards
- Enron tried to meet mechanical standards while making their situation look better

Accounting: Special Purpose Entities

- There are accounting rules for publicly traded companies which generally try to make companies report things material to how much they are worth
- These rules are necessarily limited in scope, so that companies don't have to report everything
  - Imagine if Enron owned a share of Microsoft - would it now have to report everything that Microsoft did?
  - What companies **do have to report** depends on some arbitrary thresholds, which try to get at things that are mostly their own business
- Special purpose entities are other companies that can be set up to do pieces of deals with just a little bit of outside money, but then don't require reporting all the details

Accounting: Special Purpose Entities

Specific problems occurred with JEDI, a joint venture with CALPERS, the California state pension plan

- CALPERS wanted to get out of JEDI
- A company named Chewco bought CALPERS out
- But Chewco was not enough externally owned
- So the Chewco activities should have been part of Enron's financial statements but were not

Accounting: Mark to Market

- Imagine if you've agreed to buy a cubic meter of gas every year for the next 20 years at $1
- If the price of a cubic meter is now $2, you will get $1 every year
- The idea of "mark to market" accounting is that a company's books should reflect their best guesses about the future value of these contracts
  - This is generally reasonable
  - But sometimes it allows for projections about future prices (another place models figure in!)
  - Certainly, it allows some freedom for management to make assumptions which affect their bonuses. . .
- Enron used this sort of accounting aggressively, which meant when prices went up, they made money

Running on Banks

- To the extent Enron had assets, they were often in the form of contracts to receive or sell gas to or from different groups
- Imagine if you have this $20/20 years situation, and you need to pay $3 now
  - You need to borrow
  - You're not necessarily in bad shape
- As other parties lose confidence in you, it gets harder to borrow, and this is what ultimately brought Enron into bankruptcy.

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Lesson Summary

- Enron began storing and trading gas after deregulation and made a lot of money in this market
- Enron used a mark-to-market accounting approach to record current profits for future gas sales on contracts
- Enron expanded (unsuccessfully) into electricity, coal, steel, paper, pulp, water, and broadband internet
- Enron's downfall came from improperly reporting Chewco earnings
- Parties lost confidence in Enron, which eventually led to its bankruptcy