

Capstone Project

The following scenario focuses on what is known as ‘executive risk’, which is an important aspect of organizational management as briefly explained below, and further elaborated by associated ‘explanatory and expository’ details associated with the italicized and numbered concepts (the superscript numbers associated with each italicized notion) used throughout the said description. **The overall goal of this assignment is for you to estimate and substantiate the likelihood (probability) and the monetary impact (severity, or cost) of shareholder class action litigation**, which is the key element of the aforementioned executive risk. The description included herein, and associated explanatory and expository details are meant to provide you with sufficient understanding of ‘executive risk’ and, more specifically, ‘shareholder class action litigation’ as the key manifestation of executive risk.

A brief description of the company that you are to analyze is shown on page 5 of this document. Please note that the company you will be analyzing was more or less randomly selected from the pool of US exchanges-traded public companies – you can deepen the relatively limited overview of your focal company by referencing public sources such as Yahoo Finance or Google Finance, or SEC EDGAR (<https://www.sec.gov/edgar/searchedgar/companysearch.html>). You are also welcome to peruse the instructor’s consulting site (<http://eruditesystems.com>), which contains some more shareholder class action risk estimation details.

Lastly, and perhaps most importantly, you are also provided with several data files containing company-specific details for all peer organizations, where ‘peer’ organizations are all companies grouped into the same sector as your company. For instance, if your company is classified as a ‘retail’ organization, your data will include all US stock exchange traded retail companies, which will enable you to express your company-specific estimates in terms of more decision-guiding conclusions (for example, 8% likelihood of incurring shareholder litigation, by a particular company, become considerably more meaningful when put in the context of the sector average being 2%).

Your task is as follows:

1. To familiarize yourself with the situational content and background, as laid out in this document and associated explanatory and expository sources,
2. To familiarize yourself with the company you were assigned by referencing the above noted public and governmental (i.e., SEC, or the Securities and Exchange Commission, Stanford Securities Class Action Clearinghouse, etc.) sources,
3. To review, appropriately process (e.g., re-code, as needed, impute missing values, if needed, create new variables, if needed, and combine individual data files into a larger analytical dataset, as appropriate) the provided data, and prepare that said data for further analyses,
4. To conduct analyses you deem appropriate to answer the stated business question, which is to provide **data-derived, and clearly substantiated estimates of the likelihood and severity** (i.e., impact, or expected monetary cost) of your assigned company incurring shareholder class action litigation,
5. To prepare a **summary report**, meeting the following requirements:
 - a. Length: 5 – 10 single-spaced pages, excluding title or any appendices
 - b. Summary content: A summary page, which could be presented as a scorecard or a dashboard summarizing the estimated likelihood and severity (i.e., the probability and estimated cost), and the key factors substantiating those estimates,
 - c. Detailed content: The specifics of the data analytical approach, including specific data manipulation and analysis steps,
 - d. Contributing content: Any other (than the data provided as a part of this assignment) information that was used to reach your conclusions,
 - e. Noteworthy considerations: Any specific assumptions or important limitations that should be noted by the user of your analyses.

Included Data, Readings, and Other Materials

Data Files:

<i>Fundamentals</i>	Public company (i.e., those traded on one of the US stock exchanges) basic financial and market data, reported annually (via SEC Form 10-k)
<i>Stocks</i>	Company stock specific trading, dividend and related details
<i>Securities</i>	Additional, trading-related company stock details
<i>Ratings</i>	Company-specific credit ratings
<i>Data Dictionary</i>	Listing of mnemonic (shorthand) and definitional variable names and descriptions; a separate tab contains variable names for each of the above four data files. Please note that some variables, most notably 'GVKEY', which is a unique company identifier, may be repeated.

Readings:

General, background readings:

The Ecosystem of Executive Threats
Quantifying Executive Threats
Risk Management

Reference sources:

Understanding Restatements
SEC Form 10-k
GICS Structure

Executive Risk and Shareholder Litigation – The Threat Faced by Public Companies

In the United States, one of the foundations of widespread public ownership of an investment in business organizations is timely, complete and accurate disclosure of all *past performance and future prospects*¹ related metrics; those disclosures offer the most credible means for prospective investors to feel that their investment decisions have the benefit of all pertinent and available information. Given importance of timely, complete and accurate disclosures to efficient functioning of securities markets, the United States enacted specific *laws and regulations*² that compel and frame – in terms of the what, how and when – those requirements. In addition, the US Congress also created a separate governmental agency, the Securities Exchange Commission, or SEC, to enforce and safeguard those laws. The SEC in turn developed a comprehensive *reporting system*¹ for quarterly, annual and ad hoc reporting of financial performance details, as well as information dissemination infrastructure that makes investment-pertinent financial performance data readily available to the investing public. It should be noted, however, that the definition of ‘financial performance disclosure’ reaches beyond the formal reports submitted to the SEC – corporate managers are also held accountable for verbal disclosures, such as remarks made by the company’s CEO or CFO during analyst calls or press interviews. Moreover, the scope of disclosure is not limited to past outcomes – it encompasses matters relating to future prospects, as exemplified by a pharmaceutical company receiving an informal indication of its failure to win the regulatory approval for its new drug. Lastly, from the standpoint of shareholder obligations, misstatements or withholding of information do not have to be intentional – a *careless oversight can be as damning as intentional deceit*¹⁰. The threat posed by noncompliance with the applicable laws and regulations relating to timely, complete and accurate disclosures of past performance and future prospects is known as *executive risk*³, and it represents one of the core concerns of organizational *risk management*¹¹ efforts.

When shareholders of a company traded on a US public exchange, such as the New York Stock Exchange or NASDAQ, have reasons to believe that the management of the company in which they hold stock misled them in any way (again, via untimely, incomplete or inaccurate disclosures for the company’s past performance or future prospects), and they also suffered an economic loss, typically in the form of stock price decline, they can *sue the company and its management for damages*². The shareholder damages are typically a function of the drop in stock price during a qualifying period, adjusted by expected share price volatility. Consider the following simple example that illustrates the key mechanics of that process: The shareholders of Company ABC allege that the company’s managers did not fully and timely disclose the loss of a major contract, subsequent to which the company’s stock price declined precipitously resulting in shareholder losses; the time period during which the alleged miscommunications took place stretches from January 1 thru October 31. In their complaint filed with the court, the shareholders estimate their *maximum probable loss*⁴, or MPL, by computing the difference between the high and low stock prices during the January 1 – October 31 period (e.g., if the high was \$35 and the low was \$25 then the maximum probable loss would be computed as follows: $(\$35 - \$25) \times \text{number of shares outstanding}$). MPL then forms the basis for shareholder demands – in the ensuing securities *class action litigation*³, shareholders would typically demand compensation from the company in the amount approximately equal to the aforementioned maximum probable loss.

As illustrated above, shareholder litigation can be very expensive – the mean loss is about \$88 million, but there is a very wide cross-company loss variability, as evidenced by the loss standard deviation of over \$500 million. In fact, the top largest losses are all in excess of \$1 billion (see Table 1 below).

Table 1
The Top 10 Largest Shareholder Litigation Settlements

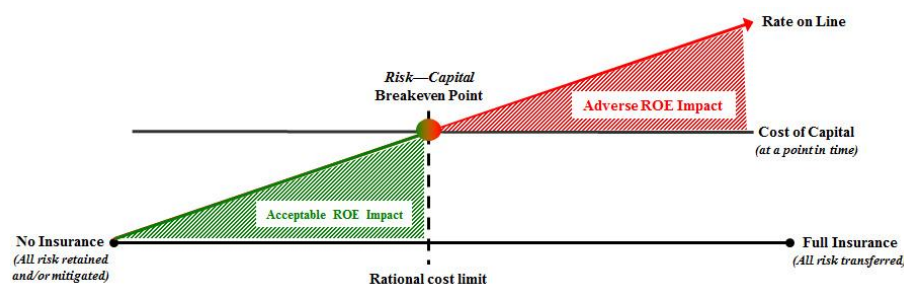
Company	Loss	Year
Enron	\$7,200,000,000	2008
WorldCom	\$6,100,000,000	2005
Tyco International	\$3,200,000,000	2007
Cendant	\$3,200,000,000	2000
Citigroup	\$2,650,000,000	2002
AOL Time Warner	\$2,650,000,000	2006
Household International	\$2,460,000,000	2013
Bank of America Merrill Lynch	\$2,430,000,000	2012
Nortel Networks	\$2,400,000,000	2007
Royal Ahold NV	\$1,100,000,000	2005

The potentially large economic loss, however, is not the only concern of corporate executives. Shareholder litigation also tends to be *reputationally*¹² quite damaging, as allegations of management misconduct can have significantly adverse impact on the overall image of the organization. Not surprisingly, virtually all companies traded on US exchanges, as well as the bulk of private, U.S.-based firms, purchase *insurance coverage*⁵ for the protection of its directors and officers (commonly known as Directors' and Officers', or *D&O coverage*⁵). That said, while recognizing the importance of adequate insurance protection, business organizations nonetheless struggle with the basic insurance procurement-related decisions, most notably: How much coverage to purchase and how much risk to retain? Is \$20 million of coverage appropriate? \$50 million? \$100 million? What about the *deductible*⁶ (also known as *self-insured retention*⁶) \$1 million? \$5 million? In general, the higher the deductible, the lower the *insurance premiums*⁷, but at the same time the higher the exposure to a potentially very costly – possibly even catastrophic – loss.

The ABCs of Insurance

Essentially all *insurance*⁷ products work on the basic principle of *risk pooling*⁷. Described in very simple terms, it is where multiple entities (individuals or companies) come together to share a particular threat, such as the above noted executive risk, in a way where every entity pays a small share of the anticipated cost of that risk, with only those who incur that risk can access and use the pooled resources. In that scenario, every risk pool participant pays into the pool (insurance premiums), but only those who incur the qualifying risk event derive financial benefits (in the form of insurance payments); however, all participants derive the intangible benefit of '*peace of mind*'¹³ that comes with a typically small *definite* expense offering protection against the *possibility* of a much larger loss. (In the case of the aforementioned D&O insurance, average premiums range between 1% and 3% of the total coverage, which means that an annual insurance premium of \$1 to \$3 million could provide up to \$100 million of insurance protection.)

A yet another instance of the general risk-return association, the insurance coverage procurement



rationalization is focused on finding the ideal trade-off between the benefit of coverage and its expense, as illustrated by the graph shown to the left. To reach the *risk-capital breakeven point*⁸,

a decision-maker needs to consider different *risk transfer and retention*¹⁴ scenarios in the context of the company's financial position, with the ultimate goal of identifying the most economically desirable aggregate coverage and retention levels.

Still, it is also important to keep in mind that insurance purchase is a *speculative economic transaction*⁹, one that is predicated upon the belief that the net present financial impact of a particular risk exposure is greater than the current cost of acquiring the appropriate coverage. It means that anchoring the decision making process in the premise that buying insurance is 'a must' amounts to concluding that the net present financial impact of a particular commercial coverage is greater than its current cost. A simple probability of occurrence vs. the insurance premium (as a percent of the value of coverage, typically expressed as 'rate-on-line') comparison can show that is not always the case. The reason for that is that insurance premiums are driven by multiple factors, most notably past occurrences, availability of capital and future expectations, which means that it is always possible for the cost of insurance coverage to be significantly higher than the net present value of the protection it provides. All of that means that while not having any insurance coverage may expose the organization to excessive risk, procuring too much coverage may create an unnecessary drag on earnings. How much coverage is the right amount?

The Company: Dolby Laboratories, Inc.

Dolby Laboratories, Inc. creates audio and imaging technologies that transform entertainment and communications at the cinema, at home, at work, and on mobile devices. The company develops and licenses its audio technologies, including Dolby Digital Plus for digital television, mobile, and Internet-based services; Dolby Digital, a digital audio coding technology that provides multichannel sound in the home; and AAC & HE-AAC, an audio coding technologies used to broadcast, download, and streaming content. Its audio technologies also comprise Dolby TrueHD, an audio coding technology for content providers; Dolby Atmos, an object-oriented audio technology for home theaters, device speakers, and headphones; Dolby AC-4, a digital audio coding system that addresses the current and future needs of broadcast and streaming entertainment services; Dolby Voice, an audio conferencing technology; and Dolby Vision, an imaging technology for cinema, digital television, and other consumer devices, as well as HEVC, a digital video codec with higher bandwidth efficiency used in a range of media devices. In addition, the company designs and manufactures audio and imaging products, such as digital cinema servers, Dolby Cinema audio products, and other products for the film production, cinema, television, broadcast, and entertainment industries. Further, it offers an array of services to support theatrical and television production for cinema exhibition, broadcast, and home entertainment. The company serves film studios, content creators, post-production facilities, cinema operators, broadcasters, and video game designers. It sells its products directly to the end users, as well as through dealers and distributors worldwide. Dolby Laboratories, Inc. was founded in 1965 and is headquartered in San Francisco, California. The company is currently traded on the New York Stock Exchange under the ticker 'DLB'.

The company's key financial metrics are as follows:

Market capitalization	\$6.53 billion
Beta	0.64
52-Week Change	22.34%
S&P500 52-Week Change	13.35%
52 Week High	\$74.79
52 Week Low	\$48.00
Shares outstanding	62.43 million
Float	59.6 million
% of shares held by insiders	4.05%
% of shares held by institutions	91.44%
Number of institutions holding shares	374
Revenue (2017)	\$1.08 billion
Quarterly Revenue Growth (year-over-year)	12.70%
Gross Profit (2017)	\$963.15 million
Net Income (2017)	\$86.85 million
Total Cash (2017)	\$946.02 million
Total Debt (2017)	n/a
Restatements (last 3 years)	?
Initial public offerings (last 3 years)	?
Mergers & acquisitions (last 3 years)	?

Dolby Laboratories is keenly interested in actively managing risks that confront it, which includes securing economically-rationalized insurance coverage to shield the company's directors and officers against potential shareholder litigation.

Explanatory & Expository Background Knowledge

1. *performance and future prospects reporting system*

The federal securities laws require public companies to disclose information on an ongoing basis. For example, domestic companies must submit annual reports on Form 10-K, quarterly reports on Form 10-Q, and current reports on Form 8-K for a number of specified events and must comply with a variety of other disclosure requirements.

The annual report on Form 10-K provides a comprehensive overview of the company's business and financial condition and includes audited financial statements. Although similarly named, the annual report on Form 10-K is distinct from the “annual report to shareholders,” which a company must send to its shareholders when it holds an annual meeting to elect directors.

Following are the deadlines for companies to file Forms 10-K and 10-Q:

Category of Filer (public float)	Revised Deadlines For Filing Periodic Reports	
	Form 10-K Deadline	Form 10-Q Deadline
Large Accelerated Filer (\$700MM or more)	60 days	40 days
Accelerated Filer (\$75MM or more and less than \$700MM)	75 days	40 days
Non-accelerated Filer (less than \$75MM)	90 days	45 days

To find a particular company's Form 10-K filings, use the Company Search for the SEC's EDGAR database. On the returned listing of filings for the company, enter “10-K” in the Filing Type box near the top of the page to filter for only Forms 10-K that have been filed. A blank version of the Form, with instructions, can be found [here](#) (link).

2. *laws and regulations*

The key US federal laws that govern the securities industry are:

- Securities Act of 1933
- Securities Exchange Act of 1934
- Trust Indenture Act of 1939
- Investment Company Act of 1940
- Investment Advisers Act of 1940
- Sarbanes-Oxley Act of 2002
- Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010

Securities Act of 1933

Often referred to as the "truth in securities" law, the Securities Act of 1933 has two basic objectives:

1. require that investors receive financial and other significant information concerning securities being offered for public sale; and
2. prohibit deceit, misrepresentations, and other fraud in the sale of securities.

A primary means of accomplishing these goals is the disclosure of important financial information through the registration of securities. This information enables investors, not the government, to make informed judgments about whether to purchase a company's securities. While the SEC requires that the information provided be accurate, it does not guarantee it. Investors who purchase securities and suffer losses have important recovery rights if they can prove that there was incomplete or inaccurate disclosure of important information.

In general, securities sold in the U.S. must be registered. The registration forms companies file provide essential facts while minimizing the burden and expense of complying with the law. In general, registration forms call for: a description of the company's properties and business, a description of the security to be offered for sale, information about the management of the company, and financial statements certified by independent accountants. Registration statements and prospectuses become public shortly after filing with the SEC. If filed by U.S. domestic companies, the statements are available on the EDGAR database accessible at www.sec.gov. Registration statements are subject to examination for compliance with disclosure requirements.

Not all offerings of securities must be registered with the SEC. Some exemptions from the registration requirement include: private offerings to a limited number of persons or institutions, offerings of limited size, intrastate offerings, and securities of municipal, state, and federal governments. By exempting many small offerings from the registration process, the SEC seeks to foster capital formation by lowering the cost of offering securities to the public.

Securities Exchange Act of 1934

With this Act, Congress created the Securities and Exchange Commission. The Act empowers the SEC with broad authority over all aspects of the securities industry. This includes the power to register, regulate, and oversee brokerage firms, transfer agents, and clearing agencies as well as the nation's securities self-regulatory organizations (SROs). The various securities exchanges, such as the New York Stock Exchange, the NASDAQ Stock Market, and the Chicago Board of Options are SROs. The Financial Industry Regulatory Authority (FINRA) is also an SRO. The Act also identifies and prohibits certain types of conduct in the markets and provides the Commission with disciplinary powers over regulated entities and persons associated with them; it also empowers the SEC to require periodic reporting of information by companies with publicly traded securities. Companies with more than \$10 million in assets whose securities are held by more than 500 owners must file annual and other periodic reports. These reports are available to the public through the SEC's EDGAR database.

The Securities Exchange Act also governs the disclosure in materials used to solicit shareholders' votes in annual or special meetings held for the election of directors and the approval of other corporate action. This information, contained in proxy materials, must be filed with the Commission in advance of any solicitation to ensure compliance with the disclosure rules. Solicitations, whether by management or shareholder groups, must disclose all important facts concerning the issues on which holders are asked to vote. The Act requires disclosure of important information by anyone seeking to acquire more than 5 percent of a company's securities by direct purchase or tender offer. Such an offer often is extended in an effort to gain control of the company. As with the proxy rules, this allows shareholders to make informed decisions on these critical corporate events.

The securities laws broadly prohibit fraudulent activities of any kind in connection with the offer, purchase, or sale of securities. These provisions are the basis for many types of disciplinary actions, including actions against fraudulent insider trading. Insider trading is illegal when a person trades a security while in possession of material nonpublic information in violation of a duty to withhold the information or refrain from trading. The Act requires a variety of market participants to register with the Commission, including exchanges, brokers and dealers, transfer agents, and clearing agencies. Registration for these organizations involves filing disclosure documents that are updated on a regular basis.

Trust Indenture Act of 1939

This Act applies to debt securities such as bonds, debentures, and notes that are offered for public sale. Even though such securities may be registered under the Securities Act, they may not be offered for sale to the public unless a formal agreement between the issuer of bonds and the bondholder, known as the trust indenture, conforms to the standards of this Act. This Act regulates the organization of companies, including mutual funds, that engage primarily in investing, reinvesting, and trading in securities, and whose own securities are offered to the investing public. The regulation is designed to minimize conflicts of interest that arise in these complex operations. The Act requires these companies to disclose their financial condition and investment policies to investors when stock is initially sold and, subsequently, on a regular basis. The focus of this Act is on disclosure to the investing public of information about the fund and its investment objectives, as well as on investment company structure and operations. It is important to remember that the Act does not permit the SEC to directly supervise the investment decisions or activities of these companies or judge the merits of their investments.

Investment Advisers Act of 1940

This law regulates investment advisers. With certain exceptions, this Act requires that firms or sole practitioners compensated for advising others about securities investments must register with the SEC and conform to regulations designed to protect investors. Since the Act was amended in 1996 and 2010, generally only advisers who have at least \$100 million of assets under management or advise a registered investment company must register with the Commission.

Sarbanes-Oxley Act of 2002

On July 30, 2002, President Bush signed into law the Sarbanes-Oxley Act of 2002, which he characterized as "the most far reaching reforms of American business practices since the time of Franklin Delano Roosevelt." The Act mandated a number of reforms to enhance corporate responsibility, enhance financial disclosures and combat corporate and accounting fraud, and created the "Public Company Accounting Oversight Board," also known as the PCAOB, to oversee the activities of the auditing profession. (Please check the Classification Tables maintained by the US House of Representatives Office of the Law Revision Counsel for updates to any of the laws.) You can find links to all Commission rulemaking and reports issued under the Sarbanes-Oxley Act at: <http://www.sec.gov/spotlight/sarbanes-oxley.htm>.

Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010

The Dodd-Frank Wall Street Reform and Consumer Protection Act was signed into law on July 21, 2010 by President Barack Obama. The legislation set out to reshape the U.S. regulatory system in a number of areas including but not limited to consumer protection, trading restrictions, credit ratings, regulation of financial products, corporate governance and disclosure, and transparency. (Please

check the Classification Tables maintained by the US House of Representatives Office of the Law Revision Counsel for updates to any of the laws.) You can find links to all Commission rulemaking and reports issued under the Dodd Frank Act at: <http://www.sec.gov/spotlight/dodd-frank.shtml>.

3. *executive risk* *class action litigation*

See the following two readings:

- *The Ecosystem of Executive Threats: A Conceptual Overview*
- *Quantifying Executive Threats: Shareholder Litigation*

Additionally, consult the key academic source of class action information and filings:

- <https://law.stanford.edu/securities-class-action-clearinghouse-scac/>

and the instructor consulting website:

- <http://eruditesystems.com>

4. *maximum probable loss*

Maximum Probable Loss (MPL) is the maximum loss that an insurer would be expected to incur on a policy; it is most often associated with insurance policies on property, such as fire insurance, and it represents the worst-case scenario for an insurer. Commercial insurance underwriters use probable maximum loss calculations to estimate the highest maximum claim that a business most likely will file, versus what it could file, for damages resulting from a catastrophic event. Although underwriters use complex statistical formulas and frequency distribution charts, the concepts involved are not difficult to understand. In fact, once you understand the basic formula, you can estimate your own PML and use this information as a starting point in negotiating favorable commercial insurance rates.

Calculate the dollar value of business property to establish the amount you stand to lose if a catastrophic event demolished your business. If you already have business property insurance, this is the amount of insurance coverage. Otherwise, add real property and business personal property to reach the valuation.

Identify risk factors that increase the chance a specific catastrophic event would demolish your business. For example, risks associated with a fire include combustible construction materials, clutter, flammable liquids or other substances used to operate or maintain your business, and distance to the nearest fire station. Risks associated with flooding include the business site, such as whether you are in a documented flood plain, construction materials and storage policies.

Identify risk mitigation factors that decrease the chance a specific catastrophic event would demolish your business. For example, risk mitigation factors associated with a fire include functioning protection systems such as alarms, automatic sprinklers and portable fire extinguishers. Also, consider elements in your emergency action plan that address emergency reporting procedures and policies for protecting business assets.

Conduct a risk analysis to estimate the degree to which risk mitigation factors decrease the chance a catastrophic event will demolish your business. The difference between these two factors determines the maximum loss your business is likely to incur. Insurance companies typically use percentages that increase incrementally by 1 percentage point. For example, an analysis might determine that risk mitigation decreases the chance of a total loss by 21 percent.

Multiply the property valuation by the highest expected loss percentage to calculate the probable maximum loss. For example, if the property valuation is \$500,000 and you determine that fire risk

mitigation reduces expected losses by 20 percent, probable maximum loss for a fire is \$500,000 multiplied by .80 or \$400,000.

5. *insurance coverage*

Insurance coverage is the amount of risk or liability that is covered for an individual or entity by way of insurance services. Insurance coverage, such as auto insurance, life insurance – or more exotic forms, such as hole-in-one insurance – is issued by an insurer in the event of unforeseen occurrences. Insurance coverage helps individuals and/or companies recover financially from unexpected events, such as car accidents or the loss of an income-producing adult supporting a family. Insurance coverage is often determined by multiple factors. For example, most insurers charge higher premiums for young male drivers, as insurers deem the probability of young men being involved in accident to be higher than say, a middle-aged married man with years of driving experience; similarly, most insurance carriers charge higher executive risk premium for companies that do not adhere to accepted standards of good corporate governance.

6. *deductible* *self-insured retention*

A *deductible* is the amount of money an individual pays for expenses before his insurance plan starts to pay. (The word "deductible" can also work as an adjective to describe the tax-deductible expenses that can deducted from someone's adjusted gross income to reduce his taxable income and his tax liability.) To understand insurance deductibles, imagine your deductible is \$300, and you incur medical expenses for \$2,000. You pay the \$300 deductible, also called the out-of-pocket cost, and your insurer pays the remaining \$1,700. However, if your entire medical bill is \$300, you would pay the entire amount and your insurer would pay nothing.

Virtually all insurance policies carry some deductibles primarily because assumption of some risk by individuals or organizations noticeably reduces the cost of insurance premiums. It is worth noting that in the United Kingdom, Australia and some other parts of the world, an insurance deductible is referred to as an excess, but excesses and deductibles function in the same way.

7. *insurance* *insurance premium* *risk pooling*

Insurance is a contract, represented by a policy, in which an individual or entity receives financial protection or reimbursement against losses from an insurance company. The company pools clients' risks to make payments more affordable for the insured. Insurance policies are used to hedge against the risk of financial losses, both big and small, that may result from damage to the insured or her property, or from liability for damage or injury caused to a third party.

There are a multitude of different types of insurance policies available, and virtually any individual or business can find an insurance company willing to insure them, for a price. The most common types of personal insurance policies are auto, health, homeowners, and life. Most individuals in the United States have at least one of these types of insurance, and car insurance is required by law.

Businesses require special types of insurance policies that insure against specific types of risks faced by the particular business. For example, a fast food restaurant needs a policy that covers damage or injury that occurs as a result of cooking with a deep fryer. An auto dealer is not subject to this type of risk but does require coverage for damage or injury that could occur during test drives. There are also insurance policies available for very specific needs, such as kidnap and ransom (K&R), directors and

officers liability (D&O), errors and omissions (E&O), medical malpractice, and professional liability insurance, also known as errors and omissions insurance. Each insurance policy includes three key components of 1. the premium, 2. policy limit, and 3. the deductible.

A policy's *premium* is simply its price, typically expressed as a monthly cost. The premium is determined by the insurer based on your or your business' risk profile, which may include creditworthiness. For example, if you own several expensive automobiles and have a history of reckless driving, you will likely pay more for an auto policy than someone with a single mid-range sedan and a perfect driving record. However, different insurers may charge different premiums for similar policies; so, finding the price that is right for you requires some legwork.

The *policy limit* is the maximum amount an insurer will pay under a policy for a covered loss. Maximums may be set per period (e.g. annual or policy term), per loss or injury, or over the life of the policy, also known as the lifetime maximum. Typically, higher limits carry higher premiums. For a general life insurance policy, the maximum amount the insurer will pay is referred to as the face value, which is the amount paid to a beneficiary upon the death of the insured.

The *deductible*, also referred to as *self-insured retention*, is a specific amount the policy-holder must pay out-of-pocket before the insurer pays a claim. Deductibles serve as deterrents to large volumes of small and insignificant claims. Deductibles can apply per-policy or per-claim depending on the insurer and the type of policy. Policies with very high deductibles are typically less expensive because the high out-of-pocket expense generally results in fewer small claims.

8. *risk-capital breakeven point*

In the general economic sense, the break-even point is the point at which cost or expenses and revenue are equal: there is no net loss or gain, and one has 'broken even.' A profit or a loss has not been made, although opportunity costs have been 'paid' and capital has received the risk-adjusted, expected return. In other words, it's the point in which the total revenue of a business exceed its total costs, and the business begins to create wealth instead of consuming it.

In a similar vein, the *Risk-Capital Breakeven Point* is the point at which the *potential* cost of an adverse event (such as the cost of fire damaging a warehouse) and the *actual* cost of insurance premiums are equal in the sense that probability-adjusted potential losses are equal to the insurance premium paid. For example, if the potential cost of a warehouse fire is estimated to be about \$10 million and the probability of that event materializing is about 1%, the potential cost of that risk would be about \$100,000 (\$10 million x 1%); at the risk-capital breakeven point, the cost of insuring the said warehouse would also be about \$100,000, which is shown graphically as the point where the 'rate on line' and 'cost of capital' curves meet.

9. *speculative economic transaction*

Speculation is the act of trading in an asset or conducting a financial transaction that has a significant risk of losing most or all of the initial outlay with the expectation of a substantial gain. With speculation, the risk of loss is more than offset by the possibility of a gain, otherwise there would be very little motivation to speculate. It may sometimes be difficult to distinguish between speculation and investment, and whether an activity qualifies as speculative or investing can depend on a number of factors, including the nature of the asset, the expected duration of the holding period, and the amount of leverage.

Any financial transaction where the eventual net return or final cost is not known in advance is considered *speculative*. From the cost accounting tracking standpoint, speculative transaction is defined to mean a transaction in which an agreement to purchase or sell any commodity, including

stocks and shares, is periodically or ultimately settled otherwise than by the actual delivery or transfer of the commodity.

10. *careless oversight can be as damning as intentional deceit*

See the following reading:

- *Understanding Restatements*

11. *risk management*

See the following reading:

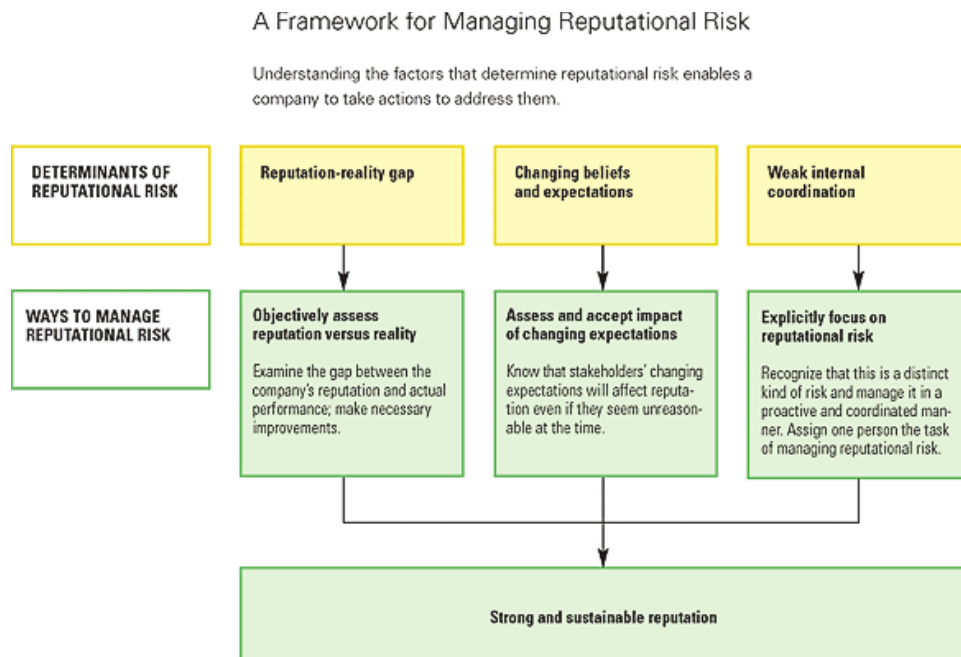
- *Risk Management*

12. *reputational risk*

Reputational risk is a threat or danger to the good name or standing of a business or entity. Reputational risk can occur through a number of ways: directly as the result of the actions of the company itself; indirectly due to the actions of an employee or employees; or tangentially through other peripheral parties, such as joint venture partners or suppliers. In addition to having good governance practices and transparency, companies need to be socially responsible and environmentally conscious to avoid or minimize reputational risk.

Reputational risk is a hidden danger that can pose a threat to the survival of the biggest and best-run companies. It can often wipe out millions or billions of dollars in market capitalization or potential revenues and can occasionally result in a change at the uppermost levels of management.

The biggest problem with reputational risk is that it can literally erupt out of nowhere, arising from the actions of errant employees, such as egregious fraud or massive trading losses disclosed by some of the world's biggest financial institutions. In an increasingly globalized environment, reputational risk can arise even in a peripheral region far away from home base – the following framework has been proposed to help organizational managers manage reputational risk.



Reputational risk exploded into full view in 2016 when the scandal involving the opening of millions of unauthorized accounts by retail bankers (and encouraged or coerced by certain supervisors) was exposed at Wells Fargo. The CEO, John Stumpf, and others were forced out or fired; regulators subjected the bank to fines and penalties; and a number of large customers reduced, suspended, or discontinued altogether doing business with the bank. Wells Fargo's reputation was tarnished.

13. *peace of mind*

Anything that stops one from worrying about a particular problem or difficulty is said to offer a *peace of mind*. While insurance coverage by no means prevents undesirable events from materializing (think of hurricanes – they damage insured and uninsured properties), the post-event compensatory mechanism of insurance protection provides the capability to quickly recover. Thus to the degree to which the essence of risk can be encapsulated as economic loss/damage, adequate insurance coverage offers a peace of mind.

14. *risk transfer and retention*

See the following reading:

- *Risk Management*