Business Risk Management

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I. Introduction

Many of the risks facing business today were unknown a generation ago. Some of them have arisen from changes in the legal environment and include potential liability for environmental damage, discrimination in employment, sexual harassment, and violence in the workplace. Other risks are the results of the emergence of the age of information technology - interruptions of business resulting from computer failures, privacy issues, and computer fraud. The potential damages of nature are evidenced by the over $22 billion in damages caused by Hurricane Andrew, by the floods in the Midwestern United States in 1993, and by the earthquakes in California and Japan in 1993 and 1994. The bombing of the World Trade Center, the Oklahoma Federal Building, and the U.S. Embassy in Kenya in 1993, 1995, and 1998 respectively show that it is not just nature that can cause death and destruction but people as well.

With the increasing array of risks, the dollar amount of losses arising from accidents has also increased. However, the increasing dollar amount of losses is not only a function of the increasing number of risks. The losses that arise from the perils of nature have exhibited an increasing severity. The reason is that today more wealth, more investment, and more assets are exposed to loss. Because business generally require the investment of assets, risk is an inherent part of a business operation.

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Business Firm Studied & Its Industry

Some risks are realized by firms to varying degrees. Thus proper risk analysis must consider the fundamental nature of different businesses. For example, Mattel, Inc has risks common to the toy industry but also faces its own firm specific risks.

Mattel is the leading worldwide designer and manufacturer of toys. The company's four principal core brands are Barbie, Fisher-Price, Disney, and Hot Wheels. These brands account for 80 percent of total sales. Additional core product lines consist of Cabbage Patch Kids, Preschool Toys, the UNO and Scrabble Games.

Competition in the toy industry is based primarily on price, quality and play value. In recent years, the toy industry has experienced rapid consolidation driven, in part, by the desire of industry competitors to offer a range of products across a broader variety of categories. However, the larger toy companies have pursued a strategy of focusing on core product lines.

The toy industry is also experiencing a shift toward greater consolidation of retail distribution channels. This consolidation has resulted in an increased reliance among retailers on the large toy companies because of their financial stability and ability to support products through advertising and promotion and to distribute products on a national basis.

Over the last ten years, toy companies based in the United States have expanded their international marketing and manufacturing operations. Mattel believes a strong international distribution system can add significantly to the sales volume of core product lines and extend the life cycles of newly-developed products.

II. Business Risk Identification

Risk Identification

Risks exist in all areas of the business firm. According to Chart 1, these risks may be categorized as follows:

1. Operation Risk

1.1 Political/Regulations

The growth of the business firm will be determined by the legal environment within which it operates. Change in regulation in many areas has a significant impact on the firm and its industry as well.

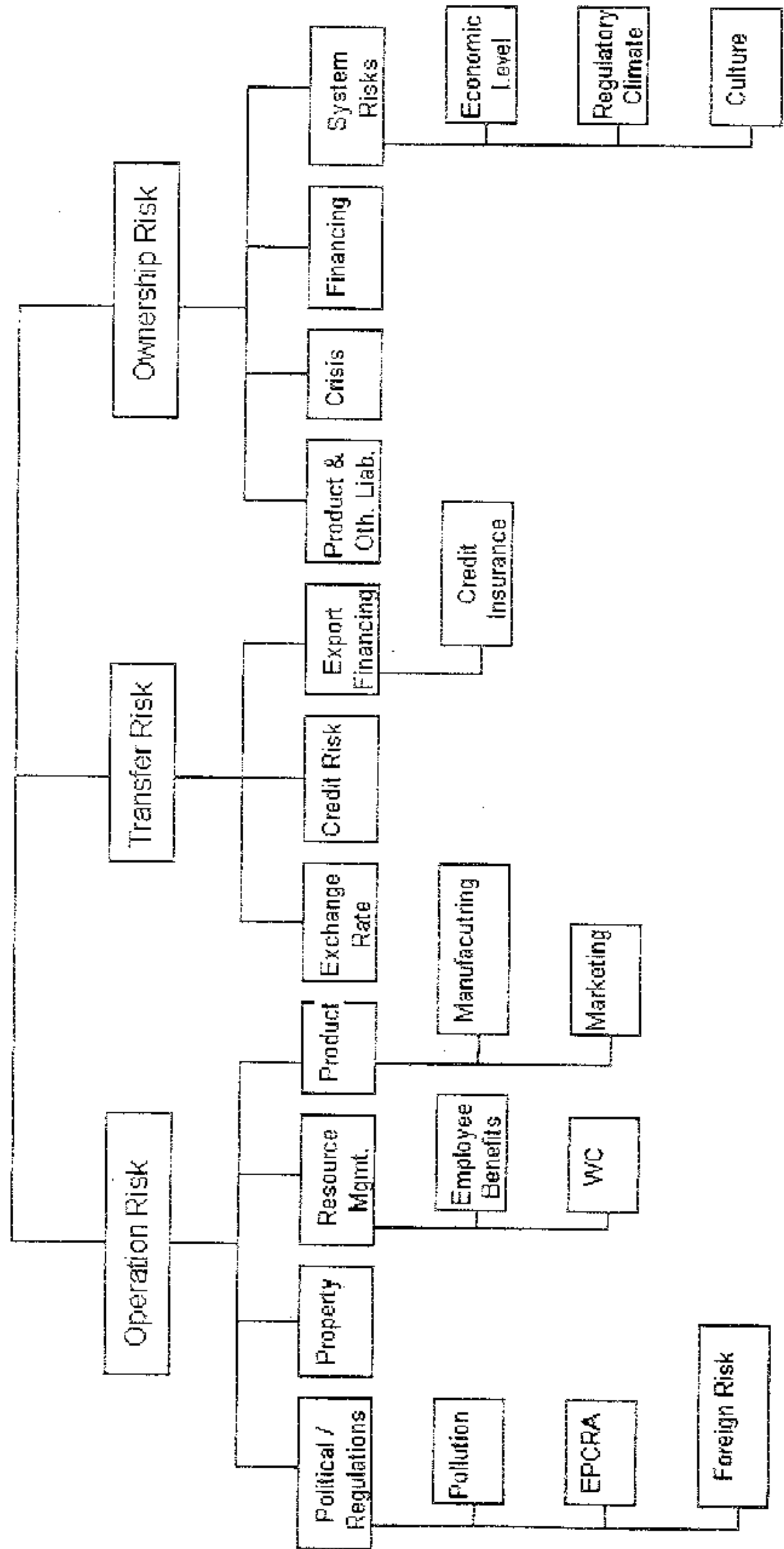
- Pollution and Environmental Impairment Liability

One of the most pressing problems for corporations today is liability coverage to meet obligations with respect to environmental impairment. Many federal statutes contain regulations relating to environment and pollution, and many states have added their own laws in this area. The Environmental Protection Agency has identified hazardous waste sites in need of cleanup or containment. These and other inactive and abandoned hazardous waste disposal sites are the subject of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as Superfund).

- The EPCRA regulations

Disaster plans are mandated in the United States. The Emergency Planning and Community Right-to-Know Act (EPCRA) provides a structure that the environmental emergency plan must follow. To ensure that all regulatory requirements are fulfilled, periodic environmental compliance audits should be conducted at key facilities. Through the use of third-party environmental engineering firms or in-house risk management expertise, these audits will be able to confirm compliance or indicate areas that need to be corrected.

Chart 1 : Risk Identification



- Foreign countries

Political risks are those risks that the company has to deal with in international operations. They occur as a result of the actions of government or other political organizations or from the political acts by business or terrorists. Political risks include bribery, political instability, economic instability, damage to property or personnel by antigovernment activity, and kidnapping and murder of the firm's employees. The worst political risk is expropriation or confiscation, in which the government nationalizes foreign companies without compensating the owners. In addition to those major causes of loss, the political risks facing the firm include mild interferences with business transactions. These interferences might be laws that require that the firm employ some minimum percentage of nationals or that it invest in local projects. Political risk may also involve restrictions on the convertibility of currency or imposition of exchange controls that would prevent or limit the transfers of profit back to the home country. In between the extremes of mild interference and confiscation of assets are actions that can cause financial loss to the firm operating in foreign nations. Higher taxes, higher utility charges, and the requirements to pay higher wages than a national company are examples of discriminatory practices that place the foreign operation of the U.S. company at a competitive disadvantage.

Since risk results from the way business is done in a country, the local political structure, both visible and behind the scenes, must be understood in order to assess the opportunities and obstacles in an international market.

1.2 Property

Property risks cover two distinct types of losses: direct loss and indirect or consequential loss. Direct loss is a loss that occurs because property is damaged or destroyed by a specified peril. Indirect property loss is the loss in value of some property due to damage of other property resulting in lost income or additional expenses.

The major ways in which revenue may be decreased as a result of property loss include a loss of rent, an interruption in the firm's operations, an interruption in the

operations of important supplies or customers, and smaller net collections on accounts receivable. Expenses may be increased because of an accidental loss in a variety of ways including extra expenses incurred to keep the business operating, cancellation of a valuable lease, and the loss of use by a tenant of irremovable improvements and betterments.

1.3 Resource Management

Several important demographic and social trends have raised the importance of employment liability as a risk management issue. The aging workforce has raised an awareness of age discrimination issues, while the entry of more women into the workplace has brought with it a greater sensitivity to matters related to sexual discrimination and harassment. The opening up of opportunities for minority groups, heretofore shut out of the primary job market, has raised matters of racial discrimination, cultural sensitivity, and even preferential treatment. Finally, the pressures of international competition have resulted in a massive restructuring of the nature of work. "Leasing" is one of the most obvious trends with employment liability implications. This practice can cause a number of complex liability and insurance coverage issues for the company. In many states, the legal status of leased employees is unclear, which consequently affects their coverage under general liability, auto liability, and workers' compensation policies.

- Employee Benefits

Employee benefits are a part of the human resource management system. An employee benefit plan is any type of plan sponsored or initiated unilaterally or jointly by employers or employees and providing benefits that stem from the employment relationship and that are not underwritten or paid for directly by the government. This plan provides income maintenance during periods when regular earnings are discontinued because of death, accident, sickness, retirement, or unemployment, and the benefits to meet medical expenses associated with illness or injury.

The design of an employee benefit plan and many of the decisions related to such plans involve the same types of decisions that are involved in managing the firm's own risks. Many plans are insured with commercial insurers. When the plans are self-insured, the considerations are similar to those that are addressed in the retention of the firm's own risks. Although employee benefits are a part of the employee-compensation system and are within the area of human resource management, it has direct relevance to the firm's design and funding of employee benefit plans.

- Workers Compensation

For many businesses, the largest single element in the cost of dealing with risk is the cost associated with employee injuries and occupational disease. Under the current system of U.S. law, an employer is held absolutely liable for injuries to employees that "arise out of and in the course of employment." Compensation to injured workers is made under a statutory schedule of benefits that is payable in addition to the total cost of medical expenses associated with the injury.. Laws vary among states as to the amount of benefits available but all states allow for full coverage of medical expenses.

1.4 Products

- Manufacturing

The firm should conduct basic consumor research and product testing, and monitor demographic factors and trends. The information assisting the firm in evaluating its manufacturing includes an analysis of increasing or decreasing demand for its products, consumer acceptance of the product line, the strength of competing products, marketing strategies of retailers and overall economic conditions. Unexpected changes in these factors can result in a lack of product availability or excess inventory in a particular product line.

- Marketing

The task of management is to research and choose target markets and develop effective offers and marketing programs as the key to attracting and keeping customers.

The product personality will dictate media choice. The firm's consideration in media strategy is to select media vehicles that reach the customers with a minimum of waste coverage. This is referred to as selectivity. Factors that are fundamental in media selection are the requirements of creative strategy, reaching the proper customer, cost efficiency, requirements for frequency, and distribution requirements.

2. Transfer Risk

2.1 Exchange Rate

Exchange rate risk is the risk that the currency of a country in which a U.S. country does business is devalued unexpectedly relative to the dollar, that the market price of the currency declines when compared with the dollar in the absence of an official devaluation, or that its convertibility is restricted.

This sword cuts two ways. If the dollar declines, US exports increase. If the non US currency is devalued, foreign subsidiaries face more expensive supply prices and increased competition from imports will occur.

Additionally when a currency declines in value relative to the dollar, the U.S. company suffers a loss to any assets denominated in that currency. Thus a significant devaluation or drop in price of a currency can be very costly to firms. For those firms whose property insurance is written in dollars, the devaluation does not cause problems. However, for those firms whose insurance is written in the foreign currency, the limits of insurance are made inadequate because of the devaluation. In addition to its effect on the value of tangible assets in the foreign country, exchange rate risk arises from the holding of foreign exchange by the firms. When the foreign currency is devalued, the firms' foreign currency holdings become worth less in U.S. currency.

2.2 Credit Risk

An important risk facing the firm is credit risk. It involves nonpayment for goods received by the customer due to the insolvency of the purchaser or for other

reasons. A careful analysis must be made of the firm's exposure to loss, terms of payment, credit allowance, and discount. Risk may be reduced through appropriate diversification of customers by geographical area, by credit ratings, or by product purchased. The risk may be transferred to others by selling the accounts to banks or other financial institutions.

2.3 Export Financing

- Credit Insurance

The purpose of export credit insurance is to place the United States exporter on an equal basis with foreign competitors and to promote exporting among private financial institutions. The risks are (1) commercial credit risk, i.e., insolvency or deliberate payment default and (2) political risk, i.e., exchange transfer delay, war, revolution, expropriation, and other causes of loss arising principally from government action and beyond the control of the buyer or seller. Most export credit insurance is issued on machinery, food and kindred products, electrical and electronic equipment and supplies, chemicals, and transportation equipment.

The cost of export credit insurance varies according to the country of destination, terms of payment, the exporter's record of credit loss, and the amount of deductible assumed.

3. Ownership Risk

3.1 Product and Other Liability

Product liability is one of the most rapidly growing sources of risk for a firm The basis for such liability may be negligence, warranty, or strict liability in tort.

When a firm manufactures or sells a product that endangers human life, health, or property, it is charged with a public duty to protect those to whom the items are provided against damage that may result if proper care was not taken in its preparation

and distribution. Failure to perform this duty constitutes negligence and may provide the basis for liability.

A warranty may also lead to liability. A warranty is a representation made by the seller of goods with reference to their character, quality, or substance. A person who purchases an article and relies upon the seller's warranty that it is harmless or fit for a certain purpose can have a cause of action if a product is proved to be dangerous or causes damages.

A firm may be held liable for damage caused by a product it has manufactured and/or sold even though neither breach of warranty nor negligence is established. Liability may be based on the doctrine of strict liability which provides that one who sells any product in a defective condition or that is unreasonably dangerous to the user or consumer may be held liable for damage caused to the user or consumer.

- Directors and Officers Liability

Directors and officers are responsible for the management of corporations. They can be held personally liable if there is a failure on their part that results in loss to the corporation or its shareholders.

3.2 Crisis

No matter how effectively a company is managed, a crisis can occur. Some events such as product tampering, hostile takeovers or natural disasters may not be preventable. However, this does not exempt a company from living with the consequences. The response to these crises is within the company's control. The firm needs to prepare and implement a crisis plan that minimizes the effect of these uncontrollable events on the firm. Availability of funds (through stocks, bonds or loans) when the firm needs it is also important.

3.3 Financing

Financing risk is the chance that an organization may lose money on its investment in assets. It can occur when money is lent to a third party who later is

unable to make interest payments and principal repayments. It can occur with the purchase of common stock, real estate, or other investments. Since assets can involve either profit or loss, the purchase of assets involves risk. Sources of financing also influence business risk. The more highly leveraged a firm is the greater is its risk.

3.4 System risks

- Economic Level

Business opportunities, including the ease of market entry, vary with the structure of the economic system. In addition, the state of the economy affects firm performance and uncertainty exists in forecasting economic levels.

- Regulatory Climate

Nations have a wide range of approaches to create and enforce personal and commercial relations. The differences are reflected in the laws regulating contracts, torts, and business dealings between individuals and organizations. The legal system determines the business and financial risks of operating in a country.

- Culture

The national culture affects the market by determining business practices. Since risk results from the way business is done in a country, the local customs must be recognized in any business operation in order to assess the opportunities and obstacles in an international market. The company should adapt its operation to cope with cultural distinction in a specific country.

Conditions Conducive to Risk Management

Risk management can contribute to the firm's performance in ensuring that the firm will not be prevented from pursuing its goals as a result of losses associated with risks. There are several conditions in which risk management activities can be used in order to minimize the cost of losses and risks facing the company.

1. Financial Distress

With the increasing array of risks, the dollar amount of losses has increased. Today more wealth, more investment, and more assets are exposed to loss. As business has become more costly, capital and financial investment increases. With the growth in capital and financial investment, the risk of financial loss also increases.

A high degree of risk will affect customers, suppliers, and the workforce. Customers are reluctant to deal with a business firm that has excessive risk and might face financial distress in the future. There is uncertainty that a firm in financial stress will be able to produce quality products. Moreover, the firm may not be around to provide service on the products that it sells, and consumers are likely to turn to less risky firms as a more dependable source of products. The same influences can also affect suppliers. The higher the risks facing the firm, the less likely it is that suppliers will offer preferential terms. Although this is most evident in the case of suppliers of credit, it is a factor for other suppliers as well. Finally, a firm's employees are also affected by excessive risk because of the close connection between the risks of the organization and their personal risks. Riskier firms will have to pay employees more than other firms to persuade them to work for the organization. The higher the risks facing the organization, the greater the possibility that employees will demand higher salaries or leave the firm.

The net effect of these influences on a high-risk firm will be to increase its costs of operation, thereby placing it at a competitive disadvantage in the market. Because high risk can increase the firm's costs, it will decrease the cash flows and can ultimately increase the likelihood of bankruptcy. The failure to manage an organization's risks can have an adverse effect on the corporation's earnings and prospects for survival.

Regarding investment management, some factors should be taken into consideration when choosing the firm's investment portfolio. The investment opportunities that offer the greatest increase in wealth tend to be the riskiest. The firms normally face a situation in which a benefit - higher return on investment - has to be traded off against the greater risk of the investment. For the firms trying to gain high

investment profits while controlling exposure to risk, risk management may help them make a better trade-off between risk and return in order to provide the highest expected return with the lowest risk possible.

2. Tax Effects

With the passage of the Tax Reform Act of 1986, the tax system in the United States has been simplified. One of the simplifications has been the decision to raise the income tax rates for the taxpayers with higher incomes (progressive tax). In addition, the highest marginal tax rate was changed. Prior to 1986, the highest marginal tax rate was 46 percent, but under present law the highest marginal rate is 39 percent. The effective marginal tax rate for large corporations is 35 percent. This is conducive for a firm to follow a risk management strategy. Since the firms with high income have to pay more tax, it would be better for the firms to smooth their income in order to minimize the tax paid and avoid high tax brackets in high income years.

3. Investment Policy

Firms requiring steady investment in things like research and development, marketing, and business expansion or firms that must be able to act very quickly to business opportunities will face more problems if they develop cash flow problems. If the firms with steady investment requirements suffer some loss which penalizes this investment, the firm's overall value will decline. In an extremely competitive industry this problem could prove fatal.

In addition, financial distress is costly and more likely for firms with high business risk. This is why such firms generally issue less debt. Moreover, the costs of distress are likely to be greater for firms whose value depends on growth opportunities or intangible assets. These firms are more likely to gain profitable investment opportunities and, if default occurs, their assets may erode rapidly. Thus, firms whose assets are weighted toward intangible assets should borrow less.

4. Transaction Costs

Institutional investors such as insurance companies, banks, and mutual fund companies have faced the same transaction costs as business firms. For these investors there is no cost disadvantage in making financial transactions (e.g. financial derivatives). To the smaller investor this is not true. Hence risk management actions such as dealing in exchange rate futures and options may be handled in a more cost efficient way by the firm than the individual investor. In a case such as this, a concreted risk management strategy should be conducted by the firms. They have a cost advantage when compared to the individual investor.

5. Asymmetric Information

As a result of business complexity and intense competition, investors in the company may not have full knowledge about the company's investment opportunities. In addition, there is noise in profits and other firm's performance measures. Thus, risk management may be used to eliminate random fluctuations that would otherwise confuse investors and allow the firm's operating performance to show through more clearly.

III. Business Firm Studied

Since risks are realized by firms to varying degrees, proper risk analysis must consider the fundamental nature of different businesses. Mattel, Inc has risks common to the toy industry but also faces its own firm specific risk

Industry Analysis

The United States is the world's largest toy market, followed by Japan and Western Europe. In 1995, U.S. retail and wholesale sales of toys totaled an estimated $20 billion and $13.4 billion respectively. The U.S. toy industry shipped more than 2.6 billion toys domestically, comprised of about 120,000 different products. Approximately 5,000-

6,000 new items are introduced each year at the American International Toy Fair in February.

Competition in the toy industry is based primarily on price, quality and play value. In recent years, the toy industry has experienced rapid consolidation driven by the desire of industry competitors to offer a range of products across a broader variety of categories. However, the larger toy companies have pursued a strategy of focusing on core product lines. Core product lines are those lines which are expected to be marketed for an extended period of time, and which historically have provided relatively consistent growth in sales and profitability. By focusing on core product lines, toy manufacturers have been able to reduce their reliance on new product introductions and the associated risk and volatility in results.

The toy industry is experiencing a shift toward greater consolidation of retail distribution channels, such as large specialty toy stores and discount retailers, including Toys R Us, Wal-Mart, K Mart and Target, which have increased their overall share of the retail market. This consolidation has resulted in an increased reliance among retailers on the large toy companies because of their financial stability and ability to support products through advertising and promotion and to distribute products on a national basis. These retailers growing acceptance of electronic data interchange has provided toy manufacturers with an ability to more closely monitor consumers' acceptance of a particular product or product line.

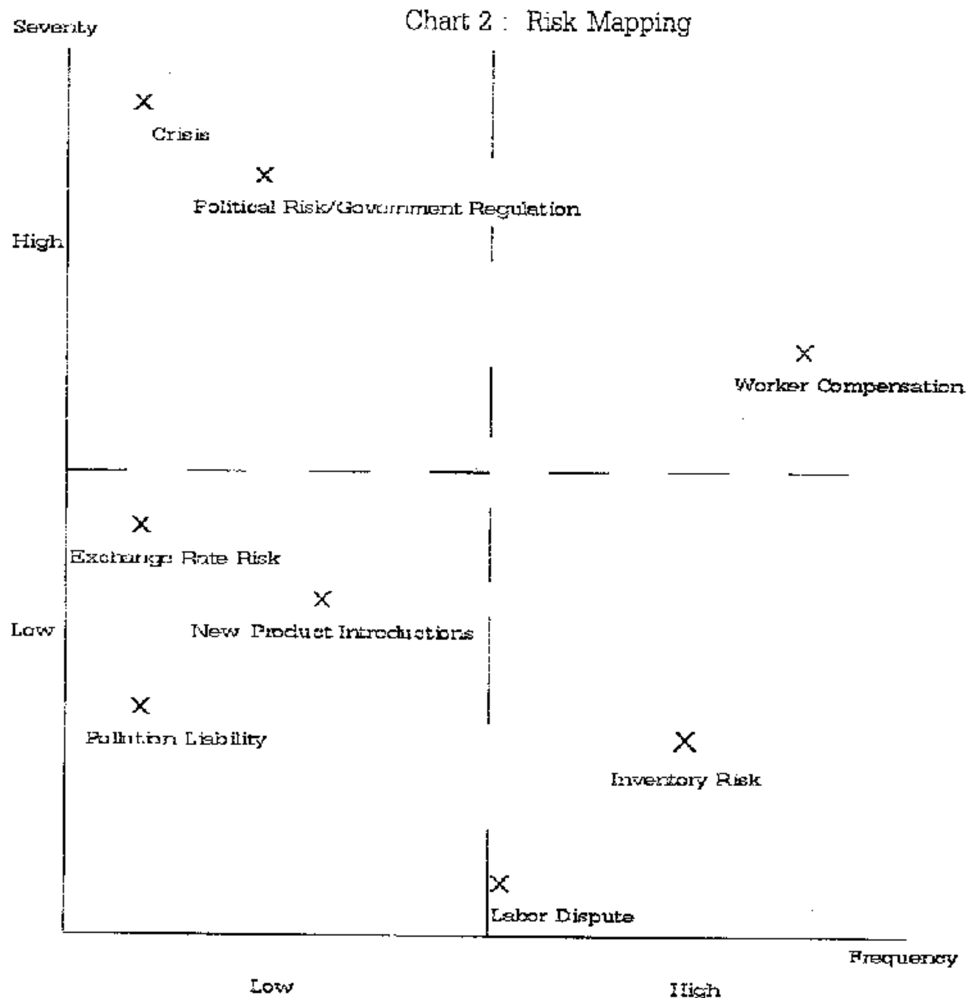
Over the last ten years, toy companies based in the United States have expanded their international marketing and manufacturing operations. These companies believe that a strong international distribution system can add significantly to the sales volume of core product lines and extend the life cycles of newly-developed products.

IV. Key Risks Associated with the Toy Industry

Risk mapping is used to identify risks exposed to the business firm and to assess specific types of risks. It can identify in one place all risks facing the company and permit cross-discipline analysis. It focuses on areas that are material to company's

financial viability and helps to quantify the required level of protection. Since risks are realized by firms to varying degrees of severity and frequency, risk analysis must consider the fundamental nature of the business. The chart that follows categorizes risks associated with the toy industry into four types, based on the combination of frequency and severity of each risk.

Chart 2 : Risk Mapping



The major risks facing the toy industry are as follows:

- Political Risk/Government Regulation

Toy companies are subject to the provisions of the Consumer Product Safety Act, the Federal Hazardous Substances Act, the Flammable Fabrics Act, and the regulations promulgated thereunder. The first two acts enable the Consumer Product Safety

Commission (the CPSC) to exclude from the market consumer products that fail to comply with safety regulations or otherwise create a substantial risk of injury and issues regulations pertaining to use of articles that contain excessive banned hazardous substances in the toys. The Flammable Fabrics Act enables the CPSC to regulate and enforce flammability standards for fabrics used in consumer products. Fisher-Price's car seats are subject to the provisions of the National Highway Transportation Safety Act, which enables the National Highway Traffic Safety Administration to promulgate performance standards for child restraint systems.

- Workers Compensation

For many businesses, the largest single element in the cost of dealing with risk is the cost associated with employee injuries and occupational disease. Under the current system of law, an employer is held absolutely liable for injuries to employees that "arise out of and in the course of employment."

- New Product Introductions

With respect to new product introductions, the company can limit its risk generally by having independent contractors manufacturer new product lines in order to minimize capital expenditures associated with new product introductions.

- Inventory Risk

The toy company generally bases its production schedules on customer orders, modified by historical trends, results of market research and current market information. The actual shipments of products ordered and the order cancellation rate are affected by consumer acceptance of the product line, the strength of competing products, marketing strategies of retailers and overall economic conditions. Unexpected changes in these factors can result in a lack of product availability or excess inventory in a particular product line.

- Product Liability

When a firm manufactures or sells a consumer product that endangers human life or health, it is charged with a public duty to protect those to whom the item is provided against damage that may result. Mattel faced a substantial product liability

risk when its Cabbage Patch Kids dolls munched on children's fingers and hair. In addition to the cost it will incur from retailers, Mattel could pay out as much as $20 million if all 500,000 dolls are returned by customers.

- Intellectual Rights

Most of the toys are sold under trademarks, trade names and copyrights, and a number of those products incorporate patented devices or designs. The company will seek patent, trademark or copyright protection covering its products, and it owns or has applications pending in the United States and foreign patents covering many of its products. However, there has been concerns regarding inadequate protection of US intellectual property rights in some countries in which the manufacturing facilities are located.

In addition to key risks mentioned above, there are minor risks facing the toy industry as well. Some of these risks are described below and appear on the risk map.

- Pollution Liability

Toy companies have to meet obligations with respect to environmental impairment. However, the liability for cleanup costs and property damage liability do not have adverse effects on most of the companies' operating results and financial position. Only one of Mattel's Fisher-Price subsidiary faced a remedial action for cleanup of contamination at one of its manufacturing plants. The ultimate liability associated with this cleanup is estimated to be less than $1.5 million.

- Labor dispute

The toy industry is involved in various litigation and other legal matters which are being defended and handled in the business. This litigation includes breach of written contract, wrongful termination, and violation of the labor code. However, none of these matters is expected to result in outcomes having a substantial effect on the toy companies.

- Crisis

No matter how effectively a company is managed, a crisis can occur. However, the response to these crises is within the company's control. With crisis planning and

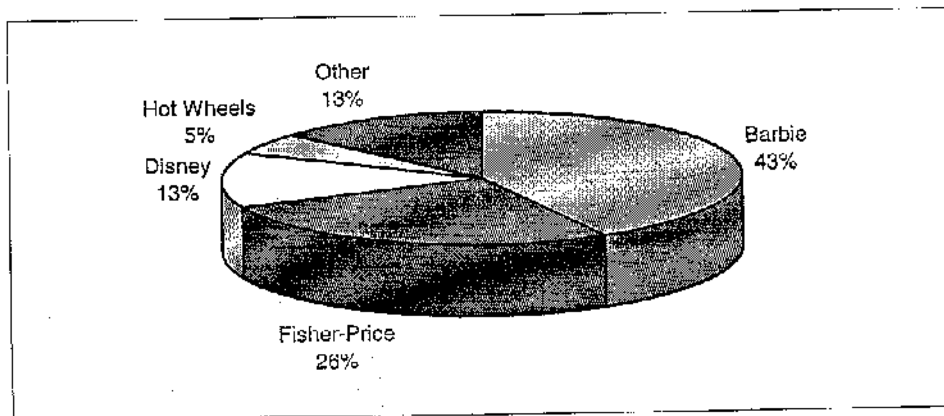
availability of funds, the toy companies can minimize the effect of these uncontrollable events.

Mattel, Inc.

Mattel is the leading designer, manufacturer, marketer, and distributer of toy products on a worldwide basis. The company's business depends in great part on its ability each year to redesign, restyle, and extend existing core products and product lines and to design and develop innovative new toys and product lines.

Products

Chart 3: Mattel's Sales by line of business



The company's four principal core brands are Barbie fashion dolls and doll clothing and accessories; Fisher-Price toys and juvenile products, including the Power Wheels line of battery-powered, ride-on vehicles; the company's Disney-licensed toys; and Hot Wheels vehicles and playsets, each of which has broad worldwide appeal. Additional core product lines consist of large dolls, including Cabbage Patch Kids; Preschool toys, including See'N Say talking toys; the Uno and Skip-Bo card games; and the Scrabble games, which the company owns in markets outside of the United States and Canada. The company's sales by line of business is shown in Chart 3.

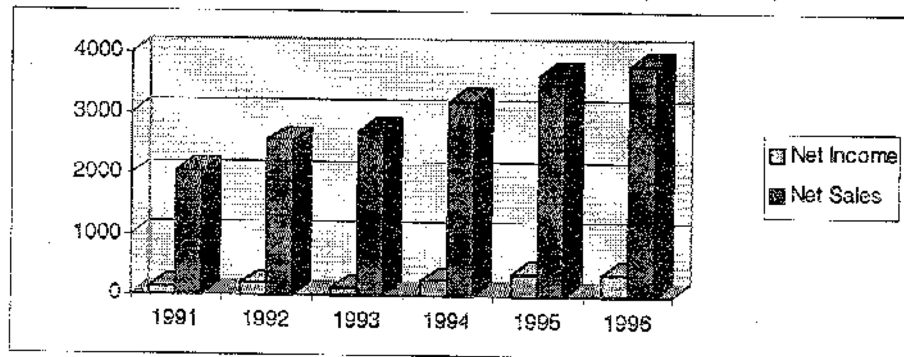
The company has achieved consistent sales and earnings growth by focusing on a number of core brands supplemented by various new product introductions. At the end of 1996, principal core brands accounted for approximately 87 percent of gross sales.

In order to provide greater flexibility in the manufacturer and delivery of products, and as part of a continuing effort to reduce manufacturing costs, Mattel has concentrated production of most of its core products in Mattel-owned facilities and generally uses independent contractors for the production of non-core products.

With respect to new product introductions, the company's strategy is to begin production on a limited basis until a product's initial success has been proven in the marketplace. The production schedule is then modified to meet expected demand. The company further limits its risk by generally having independent contractors manufacture new product lines in order to minimize capital expenditures associated with new product introductions. This strategy has reduced inventory risk and significantly limited the potential loss associated with new product introductions.

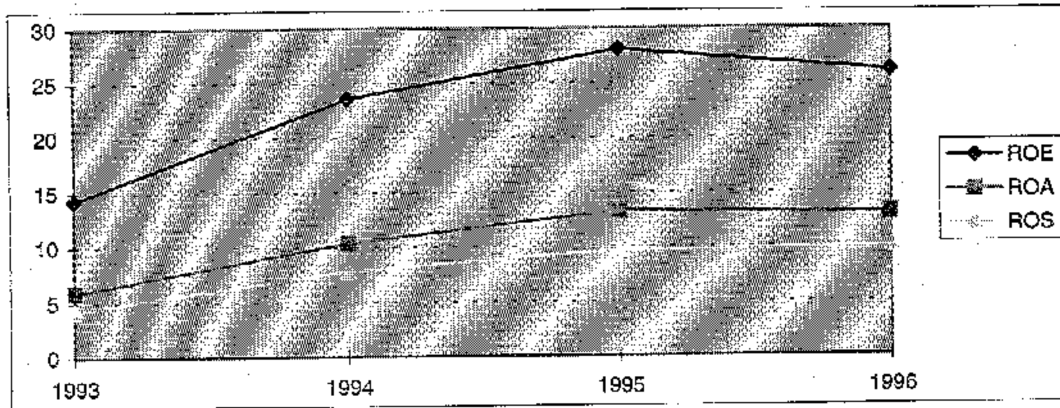
Sales and Result of Operations

Chart 4 : Mattel's Sales and Net Income (In millions)



According to Chart 4, net sales increased $147.1 million to $3,876 million in 1996. This is a result of the continuing strong demand for the company's core products. Worldwide sales of core products in 1996 was 87 percent of the company's gross sales compared to 83 percent in 1995. Net sales to customers within the United States grew 7 percent and accounted for 63 percent of net sales in 1996 compared to the prior year. Net sales to customers outside of the United States remained virtually flat compared to 1995, including the $29.8 million unfavorable effect of the stronger US dollar relative to last year. At comparable foreign currency exchange rates, sales internationally grew 2 percent.

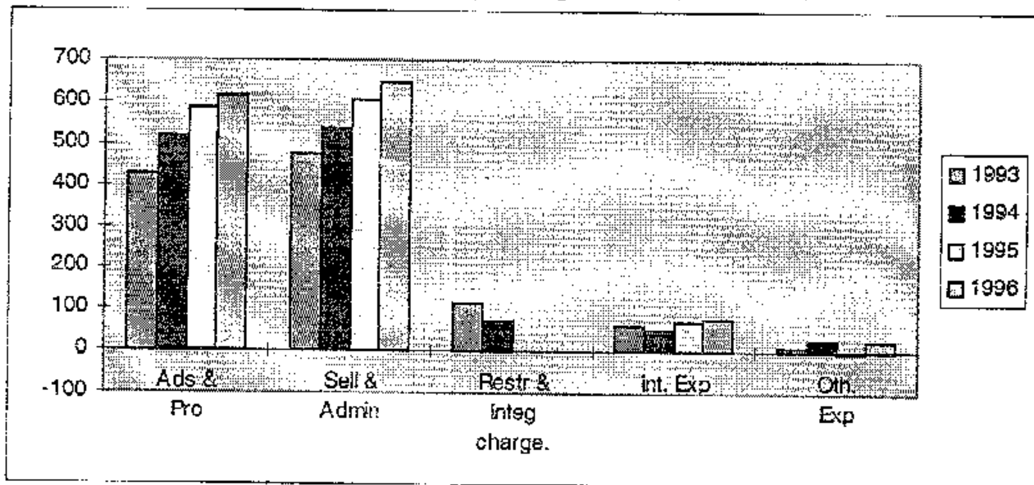
Chart 5 : Mattel's Profitability's Ratio (Percent)



Gross profit as a percentage of net sales increased one percent to 50 percent as a result of lower resin and other commodity prices and improved product mix. Advertising and promotion expenses remained constant as a percentage of net sales. However, spending increased about $30 million in support of increased sales volume, new product introductions, and further development of international markets.

Other selling and administrative expenses increased one percent to 17 percent. This growth reflects higher design and development expenses related to new products, increased sales and marketing expenditures to support development of the company's brands, and higher depreciation expense related to increased investment in fixed assets, partially offset by a decrease in incentive compensation. Other expenses increased $30.7 million due to nonrecurring 1995 gains recognized on the sale of non-toy operations, trademark rights, and foreign currency transactions. Mattel's operating results are illustrated in Chart 6.

Chart 6: Mattel's Operating Results (In millions)



International operations

Revenues from the company's international operations represented approximately 37 percent, 39 percent, 40 percent, and 40 percent of total revenues in 1996, 1995, 1994, and 1993 respectively. Products marketed internationally are the same as those marketed domestically. However, some are developed or adapted for particular international markets. The company sells its products through its marketing operations in more than 30 countries.

The strength of the US dollar relative to other currencies can affect the revenues and profitability of the company's international operations. The company enters into foreign currency forward exchange contracts and swap agreements primarily as hedges for payment of inventory purchases, collection of sales and various other intercompany transactions. The contracts are intended to fix a portion of the company's product cost and intercompany transactions, and thereby moderate the impact of foreign currency fluctuations on the company's operations and cash flows. The company does not trade in financial instruments nor does it enter into contracts for speculative purposes.

In the first few months of 1997, the US dollar has strengthened significantly against many major foreign currencies. Although the company hedges a portion of its anticipated currency exposures, the remaining unhedged portion could be adversely

impacted by the strengthening US dollar. Additionally, if this strengthening persists, Mattel's operatings results could be adversely impacted by unfavorable translation effects on foreign revenues and earnings.

V. Risk Financing Capacity

In order to determine the risk retention capacity of the firm, it is necessary to measure the resources that would be available to pay losses. By using Mattel's financial data, the risk retention levels suggested by all of the rules of thumb are as follows:

Table 1: Risk Retention Levels

(In thousands)	1994	1995	1996
Working Capital			
2% of working capital	$ 12,552.80	$ 16,862.80	$ 16,209.50
15% of working capital	$ 94,146.30	$ 126,470.70	$ 121,571.00
Total Asset Method			
1% of total assets	$ 24,590.30	$ 26,955.10	$ 28,935.20
5% of total assets	$ 122,951.30	$ 134,775.50	$ 144,676.10
Earnings/Surplus Method			
1% of 5 yr. avg. pre-tax earnings	$ 2,818.90	$ 3,320.90	$ 3,983.70
8% of 5 yr. avg. pre-tax earnings	$ 22,551.0	$ 16,604.5	$ 31,869.9
Sales Budget Method			
0.5% of annual sales	$ 16,025.1	$ 18,194.1	$ 18,929.8
2% of annual sales	$ 64,100.5	$ 72,776.2	$ 75,719.2

- Working Capital Method

One of the measure of the ability to withstand unexpected losses is working capital. Although there is no hard and fast rule for the percentage of working capital that should be considered as a maximum level of risk retention, guidelines used by

various firms range from 2 percent to as much as 15 percent. 2 percent might be used when the firm is inventory intensive and cannot liquidate current assets without financial loss. The high range might be used when the firm has a very liquid working capital position. According to the above table, Mattel's retention level based on working capital method ranges from $16.2 million to $121.6 million.

- Total Asset Method

The total asset measure is an indication of the firm's borrowing power and overall financial strength rather than its short-term availability of funds. A range of 1 to 5 percent is suggested. The dollar amount of retention suggested by this method is between $28.9 million and $144.7 million.

- Earnings/Surplus Method

To measure the ability to fund losses through earnings, the retained earnings over a five-year period should be considered. Suggested range of earnings are 1 to 8 percent of average pre-tax earnings over the past five years. Risk retention level determined from this method ranges from $4.0 million to $31.9 million.

- Sales Budget Method

Still another indicator that may be used is the sales budget. A range of 0.5 to 2 percent of annual sales might be considered. Mattel's amount of retention suggested by this method is between $18.9 million to $75.7 million.

The Shortcomings of the Rules of Thumb Approach

Since there is no hard and fast rule that permits easy computation of a risk retention level, all that can be expected is the identification of the various factors that might be considered and the suggestion of the range of retention levels with which management might be comfortable. In many instances, each of these factors indicates a somewhat different level. Thus, determination of risk retention levels should be made on the basis of an integrated financial analysis rather than arbitrary guidelines or rules of thumb.

The Ideal Data Necessary to Choose the Appropriate Retention Level

In addition to risk retention analysis guidelines, other data necessary to choose the appropriate retention level are as follows:

1. Financial Ratios

Financial ratios are the indicators that summarize large quantities of financial data and compare the firm's performance with other businesses. Leverage ratios measure the funds supplied by the creditors and show how heavily the company is in debt. Liquidity ratios measure how easily the firm can lay its hands on cash and the ability of the firm to meet financial obligations. Profitability ratios are used to judge how efficiently the firm is using its assets. By using these financial ratios, the firm will be in better position in determining its capacity to retain risks.

2. Risk financing options

One of the approaches to determine the level of risk retention is to measure the potential premium saving for a deductible or a given size against the risk retained. In addition, the distinction between financing losses and financing risk raises an important issue in the decision to retain or transfer a particular exposure. When insurance is purchased, the premium includes provision both for the cost of losses that will be funded by the coverage and for the cost of risk. However, there are separate costs for funding losses and for financing risk when a risk is retained.

3. Pass loss records

Pass loss data should be gathered, recorded, trended and developed. The results of such adjustments can be used to calculate an expected loss amount. Statistical tools can also be used to derive total loss cost distributions in order to determine an appropriate retention level.

VI. Risk Financing Recommendations

Since there is no hard and fast rule to compute an appropriate risk retention level, all that can be expected is the identification of the various factors that might be considered and the suggestion of the range of the retention levels. Determination of risk

retention levels for Mattel is made on the basis of some rules of thumb, an integrated financial analysis, risk financing options, and past loss records.

Table 2: Mattel's Financial Ratios

(In thousands)	1994	1995	1996
Liquidity Ratios			
Net Working Capital to Asset	0.26	0.31	0.28
Current Ratio	1.69	1.99	1.84
Quick Ratio	1.09	1.35	1.28
Cash Ratio	0.26	0.55	0.52
Leverage Ratios			
Debt Ratio	0.26	0.27	0.21
Debt to Equity Ratio	0.35	0.38	0.46
Profitability Ratios			
ROS	8.0	9.8	10.0
ROA	10.4	13.3	13.1
ROE	23.6	28.1	26.1
Inventory Turnover	5.74	5.36	5.2
Payout Ratio	0.17	0.15	0.18

With high liquidity ratios, high profitability ratios, and low leverage ratios, Mattel is efficiently using its assets, has a very liquid working capital level, and is in strong financial condition. Mattel is also sufficiently strong with the balance sheet and income statement to absorb the risks that it retains. However, Mattel should be aware of current developments and statutory requirements that affect the viability of the retention program, and the flexibility to respond to changing circumstances that affect its risks and coverage of the firm. Thus, the recommended risk retention level for Mattel is a moderate amount somewhere between $45 to $50 million.

The firm believes its retention program will be more cost efficient than transfer of this risk. This is particularly true in cases in which there is no need for the financial

protection furnished by insurance. When losses are reasonably predictable, with a small likelihood of deviation from year to year, the risk can be retained. In addition, risk retention avoids certain expenses associated with the traditional commercial insurance market. These include insurer overhead and profit, agents' commission, and the premium taxes paid by insurers. Additionally, risk retention can avoid the social load in insurance rates that results from statutory mandates that insurers cover certain exposures in which premiums are less than the losses for those insured. These underwriting losses are passed on to other insureds in the form of higher premiums than their hazards justify.

Although risk retention is a legitimate method of dealing with risks, risks that should be retained are those that lead to relatively small certain losses. The wisest course of action is to use concurrently more than one method of handling a risk. Thus, risk retention should be used in conjunction with risk transfer.

Even though risk retention could result in monetary savings, there are advantages in stabilizing insurance costs and in making this cost predictable each year. The insurance premium constitutes a regular deduction for tax purposes, and also enables management to stabilize profits. Under the retention program, there may be greater variation of costs from year to year. Thus, profits may be higher one year but drop considerably in the years in which losses occur, especially for catastrophe losses. Thus, it would be better for Mattel to smooth its income in order to minimize the tax paid and avoid high tax brackets in high income years.

Finite risk insurance is a financing tool used in connection with risk retention to smooth the effect of retained losses on the firm's balance sheet. It does this by redistributing large losses over a number of accounting periods so that excessive losses do not become entries into the balance sheet in a single year. Finite risk insurance is based on the premise that the insured will pay its own losses over time, and that fluctuations in loss experience can be smoothed by contractual transfer between the firm and the insurance company. The basic function of finite risk insurance, then, is to reduce the timing risk associated with a risk retention program.

In addition, some risks management actions such as dealing in exchange rate futures may be handled in conjunction with other risks in a more cost efficient way by the insurance company than Mattel. In a case like this, the company should conduct risk transfer.

Additionally, the company may want an outside party to settle claims since risk retention of some exposures can create adverse employee and public relations. In workers' compensation where bias may influence a claim, there are distinct advantages to have a third party, rather than the company itself, deal with an insured employee.

VII. Conclusion

Since risks are realized by firms to varying degrees, proper risk analysis must consider the fundamental nature of different businesses. Mattel, Inc. has risks common to the toy industry but also faces its own firm specific risks. We used risk mapping to identify risks exposed to the firm and to assess specific types of risks to varying degrees of severity and frequency. The major risks facing the toy industry are political risk/government regulation, workers' compensation, new product introductions, inventory risk, product liability, and intellectual rights. Pollution liability, labor dispute, crisis, and exchange rate risk are minor risks facing the industry.

Determination of Mattel's suggested risk retention levels is made using commonly accepted rules of thumb, an integrated financial analysis, risk financing options, and past loss records. According to this information, Mattel has a strong financial condition and a very liquid working capital position. The dollar amount of retention suggested is between $45-50 million.

However, risk transfer should be used in conjunction with risk retention. Risk transfer enables the firm to stabilize profits and smooth its income in order to minimize the tax paid and avoid high tax brackets in high income years. Since risk retention can leave the company exposed to catastrophic loss, finite risk insurance is a recommended financing tool used in connection with risk retention to smooth the effect of retained losses on the firm's balance sheet.

In addition, the firm should conduct risk transfer when the insurance company can handle the exposures in a more cost efficient way, the firm can make better use of its loss reserve, or for exposures that can create adverse employee and public relations.

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