The History and Development of Business Interruption Insurance

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The importance of business interruption (BI) insurance as it relates to the experience of businesses following disasters or other major losses has become clear, as risk management professionals consistently rank business interruption as the most significant corporate threat to businesses globally. Of late, business interruption claims brought about by cyberattacks and global pandemics have been of interest to industry participants. Understanding the history of this important source of coverage in the private insurance market and its development is important to insurance regulators and other policymakers who are wrestling with the way forward.

The objectives of this paper are to:

- Chronicle the development of BI insurance in the U.S. by providing an exposition of the various forms of this insurance in the order in which they emerged.
- Describe the major policy formats that have been available to provide cover for the disruption of business.
- Identify significant legal rulings and insurance catastrophes that have served as inflection points in the development of BI insurance.

Although the theoretical premise of BI insurance is quite simple, the accurate determination of covered losses for this type of insurance has proven to be challenging in practice. The complexity of BI insurance was highlighted most recently in the context of the COVID-19 global pandemic, with the vast majority of COVID-related insurance litigation arising from BI insurance policies. Many of these cases are yet to be concluded, and new cases continue to be filed, further emphasizing the economic importance of this insurance to society.

The businesses covered by BI insurance are non-static. As the modern economy continues to grow more complex, the intricacies of BI insurance continue to deepen. The comprehensive review of the history of BI insurance provided in this paper offers a firm foundation for ensuring thoughtful product development and insurance regulatory decisions that will support the continued evolution and availability of this important coverage.

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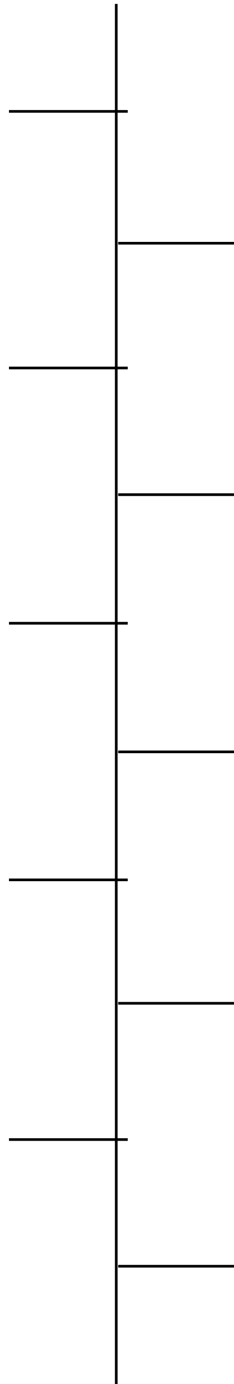

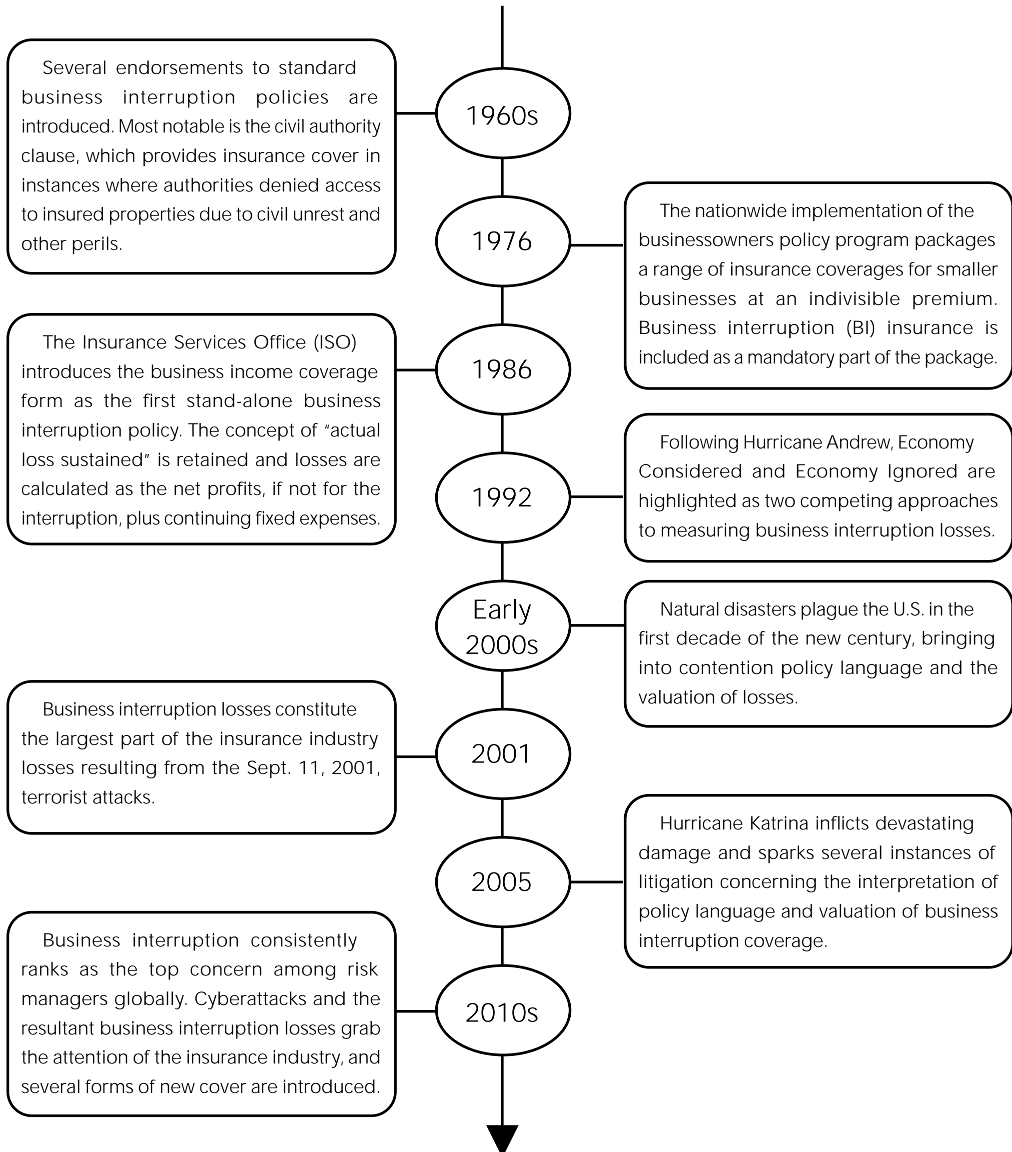

1960s
Several endorsements to standard business interruption policies are introduced. Most notable is the civil authority clause, which provides insurance cover in instances where authorities denied access to insured properties due to civil unrest and other perils.
1976
The nationwide implementation of the businessowners policy program packages a range of insurance coverages for smaller businesses at an indivisible premium. Business interruption (BI) insurance is included as a mandatory part of the package.
1986
The Insurance Services Office (ISO) introduces the business income coverage form as the first stand-alone business interruption policy. The concept of "actual loss sustained" is retained and losses are calculated as the net profits, if not for the interruption, plus continuing fixed expenses.
1992
Following Hurricane Andrew, Economy Considered and Economy Ignored are highlighted as two competing approaches to measuring business interruption losses.
Early 2000s
Natural disasters plague the U.S. in the first decade of the new century, bringing into contention policy language and the valuation of losses.
2001
Business interruption losses constitute the largest part of the insurance industry losses resulting from the Sept. 11, 2001, terrorist attacks.
2005
Hurricane Katrina inflicts devastating damage and sparks several instances of litigation concerning the interpretation of policy language and valuation of business interruption coverage.
2010s
Business interruption consistently ranks as the top concern among risk managers globally. Cyberattacks and the resultant business interruption losses grab the attention of the insurance industry, and several forms of new cover are introduced.

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Introduction

It is well established that the financial consequences of damage or destruction to property may extend far beyond the property's value alone. Whether insured or not, disruption to normal business operations can be particularly devastating to commercial enterprises, as highlighted by COVID-19-related disruptions (Bartik, et al., 2020). Similarly, the Federal Emergency Management Agency (FEMA) expects 40% of companies not to reopen following a natural disaster and an additional 25% to fail within one year (Insurance Information Institute, 2021). Business interruption has thus grown to be regarded as the most significant threat to business solvency by global risk management experts and business continuity professionals (Allianz Global Corporate & Specialty, 2021; World Economic Forum, 2015).

Business interruption (BI) insurance aims to offset the subsequent financial consequences of a disruption to normal business operations by a covered peril. The insurance indemnifies the insured during a period of partial or total shutdown for the profits (and some expenses) the business would have made (incurred) if no interruption had occurred.

Consequently, BI insurance has become a fundamental part of all corporate risk management strategies. Preliminary results from a National Association of Insurance (NAIC) data call in 2020 showed that nearly 8 million commercial insurance policies included business interruption coverage. Despite the importance of this type of insurance protection for businesses of all sizes, a review of this coverage and the history of its development is largely missing from the scholarly and business literature.

In the field of risk and insurance, prior academic work on BI insurance has focused either on the modelling of expected losses or the accurate estimation of insured losses from past events (Bisco, Fier, & Pooser, 2020; Rose & Huyck, 2016; Zajdenweber, 1996). Academic work in the insurance law field has focused on settling disputes relating to business interruption claims arising from specific catastrophes (French, 2013; Miller & Jean, 2010). In turn, authors in management science have focused on incorporating BI insurance as part of a comprehensive risk management strategy (Kornegay, Killian, & Pickens, 2018).

This paper follows a chronological approach providing an exposition of the various forms of BI insurance in the order in which they emerged in the U.S. The coverage was originally known as use and occupancy insurance and eventually evolved into the business income coverage used today. Various endorsements to standard business interruption policies developed in response to coverage demands are also considered.

Over time, differing policy formats have emerged with consideration as to the nature and size of the operations for which the coverage is intended. Policy changes have predominantly been aimed at producing a more accurate measurement of the losses brought about by a disruption. This process has not been straightforward, and critical changes in policy forms have often followed major catastrophes and legal rulings. These are also examined in this paper. The complexity of BI insurance was highlighted most recently in the context of the COVID-19 global pandemic, with the vast majority of COVID-related insurance litigation arising from business income insurance policies (Covid Coverage Litigation Tracker, 2022).

Ultimately, the importance of BI insurance as it relates to the experience of businesses following disasters or other significant losses have become clear, as risk management professionals rank business interruption as the most significant corporate threat to

Marine insurance policies thus came to be classified as "valued" or "unvalued." Under a valued policy, the insured and the insurer agreed on the value of the insured goods, which typically included anticipated profit, at the commencement of the policy. In the event of a loss, this "agree value" was binding. On the other hand, with unvalued policies, no cover for anticipated profit was included.[2] Contrary to marine policies, establishing an agreed value, which could include an addition for anticipated profit, was not adopted in early property insurance. The first fire insurance policies were the marine equivalent of "unvalued" contracts that entitled the insured to recover the direct value of the insured item that was lost, but no more.

The first insurer to introduce additional coverage for consequential costs to a fire insurance policy appears to be the United Kingdom (UK)-based Minerva Universal Insurance, which did so in 1797 (Morrison, Miller, & Paris, 1987). The policy made an earnest attempt at insuring business profits, but the enterprise ultimately failed, arguably due to the primitive book-keeping standards of the time (Hickmott, 1982).[3] Regardless, profits were insurable with (1806) determining as much, though the decision noted that the insured profits should be described.

A notable early American case in which the insured's claim for loss of profit was not granted, as it was not explicitly included in the applicable fire policy, was the case of (1848). The ruling in this case cited two contemporary British cases in which insurance awards for consequential losses from interrupted business due to fire were not granted. In (1834), it was held that rent payable, the cost of renting alternate premises, and lost profits following a fire at an inn could not be recovered unless expressly covered by the fire policy. Similarly, in (1847), a manufacturer failed in its claim for consequential damage as a result of loss of occupancy, loss of profits, and wages of servants while buildings were under repair following a fire.

Despite the litigation outcomes of the early 1800s, the concept of consequential losses was established in the property insurance market. It was recognized that direct physical damage could result in loss of profits and significant continuing expenses during the period necessary to repair the damage. Indemnification for indirect losses could include insurance coverage consisting of two parts, one where the indemnity involves a time element and one without a link to time (Huebner & Black, 1957).

An early example of business interruption cover without a link to time was the "chomage" policy, introduced in Alsace, France, in 1857 (Hickmott, 1982). The term translates to "enforced idleness" or "stoppage of work," and the cover was offered as supplement to property insurance policies providing cover against direct losses. The additional cover was provided as a fixed percentage of the damaged or destroyed stock, to compensate for the loss of profits that the sale of that stock would have generated. Chomage policies were thus valued contracts based on the principle of marginal cost recovery. Therefore in the event of a partial claim under the direct loss policy, the same percentage would be applied to an accompanying chomage policy.

2. Of course, the notion of agreed value coverages continues to this day in many contexts.

3. Consistent accounting standards were not developed until the mid-1800s with The Institute of Chartered Accountants of Scotland (ICAS) forming in 1854, The Institute of Chartered Accountants in England and Wales (ICAEW) in 1880, and the American Institute of Certified Public Accountants (AICPA) in 1887.

The chomage principle was later adopted in the UK under the names "percentage of fire loss" and "pay as paid" policies, where it was customary to restrict the sum insured to 10% of the value of the covered stock. However, these policies were not considered to be indemnity-based policies, since an insured's trading losses are not necessarily proportionate to the loss of stock and no account was taken of damage to buildings or machinery.

Although some business interruption-related cover without a time element can be found in modern insurance products (e.g., selling price valuation, agreed values, etc.), standard business interruption policies are considered to be "time element coverages." In the U.S. insurance market, this distinction was made clear from the outset, where BI insurance was initially known as "use and occupancy" insurance. In the UK, however, despite "time loss" policies being introduced as far back as 1821, cover for consequential losses were referred to as "profits insurance" well into the 20th century. These policies will be discussed further in later sections.

with adjustments in the agreed policy value (Hickmott, 1982). This necessitated a move away from the formulaic per diem principle of offering an agreed sum per day, week, or month of interruption to instead protect the value that the business derived from the "use and occupancy" of its premises and machinery.

"Use and occupancy" insurance thus became the name by which BI insurance was first popularly known in the U.S.[4] Until the 1940s, the term "use and occupancy" especially referenced the loss of production following fire, although in boiler and machinery insurance, the term survived until the 1970s. However, despite the move away from time loss policies, in early court cases arising from use and occupancy insurance, the courts continued to accept use and occupancy policies as providing indemnity through a per diem valuation.[5] Subsequent policy forms thus explicitly stated that the subjects of insurance were to be net profits and continuing expenses, although the term "use and occupancy" remained and in time became synonymous with BI insurance in the U.S.

Use and Occupancy as an Endorsement to Fire Insurance

At the same time, use and occupancy insurance was established as an extension of fire insurance in recognition that fire damage may extend beyond the direct loss of property and also disrupt normal business operations. Throughout the late 1800s and 1900s, the connection to fire insurance remained strong. Hence, the drive towards standardized fire insurance contracts also affected standardization of business interruption policies (Evans, 1914).

Before widespread standardization, each insurer prepared its own insurance form (including fire insurance forms), which impeded the growth of business interruption coverage in the same way as the lack of uniformity in accounting standards had done previously. This condition was not easily resolved, despite earnest efforts to produce a standard fire insurance policy at the first annual meeting of the National Board of Fire Underwriters in 1867 (Wenck, 1968).

The first standard policy to be used across multiple states resulted from a statute passed by the New York state legislature stipulating that the Insurance Superintendent of the state was to prepare a standard policy, unless the New York Board of Fire Underwriters did so first (Wenck, 1968). The Board of Fire Underwriters took the initiative and filed a standard policy and standard modifying endorsements. The policy became known as the New York 1886 policy (despite becoming effective in 1887).

During the late 1800s, however, coverage of business interruption using the per diem concept was still commonplace. Recall that this concept relied on an agreed value rather than the actual loss sustained. This feature of early BI insurance often resulted in claim payments exceeding actual losses, a situation bemoaned at the

4. Although the term "business interruption insurance" appeared in the U.S. as early as 1908, it came into popular use much later, as "use and occupancy" insurance and later "gross earnings" insurance were initially the preferred terms for this type of cover.

5. For example, see (1902), (1902), and (1903).

above-mentioned inaugural meeting of National Board of Fire Underwriters (National

While the form was moving towards standardization, the rating for the general use and occupancy hazard changed from "open rating" to the use of an analytic rating schedule. In this regard too, there was no uniformity as it became practice to assign different business interruption rates to different manufacturing plants, without any consistency in the interpretation of the rating schedule among different rating bureaus. The discretion of underwriters, particularly in their responsibility to perform both rating and loss adjustment duties for business interruption coverage, meant that such underwriters attracted relatively high compensation. This brought about further agitation in the market, and the desire for simplification and uniformity ultimately resulted in a third New York standard policy being introduced in 1943 and widely adopted across the country (Wenck, 1968).

In 1936, the NAIC appointed a special committee to prepare a standard fire insurance form. After three years, a form was submitted and approved by the NAIC, but it failed to be adopted in any s<025 Tw 9.wn dsob85 0 Trm wa.6 (i)s su.5 (adopted)0.5 6in anw an as<35

company's quantity (or value) of output or the turnover of the business (Kahler, 1932).

stock were dealt with separately, and the lost income was based on the net sales value of production (Huebner & Black, 1957).

Although the two item contribution plan was widely adopted in its standard form, it also allowed for modification by endorsement. Endorsements were made either by the physical attachment of a supplementary form to the standard policy or by the specifications made in the clauses contained in the standard form. In lieu of the time limits that existed under per diem policies, the two covered items each had a separate coinsurance clause stipulating the percentage of income that should be covered. Initially, all policies specified a minimum of 80% coinsurance, but later 100% coinsurance was introduced, particularly in jurisdictions on the west coast (Schultz & Bardwell, 1959). The coinsurance percentage for item (i) would be applied to the sum of the annual net profits and all ongoing expenses (excluding ordinary payroll) that would have been incurred in the 12 months immediately the date of damage had no loss occurred.

Although the insured event had to occur within the period of the policy, the losses were not limited to the policy term. Hence, an interruption commencing in the last month of the annual policy could result in losses that were covered for as long as 24 months after policy inception (Bardwell, 1982). Since premiums for the two item contribution plan were based on projected earnings for the full 12 months following a potential loss, this meant that earnings had to be projected two years into the future on annual policies, as were typical (Huebner & Black, 1957). In the event of underinsurance, the principle of averaging would be applied so that the insured would receive a lower amount than the full value of the loss, even if the loss was partial.

The two item contribution plan remained popular among manufacturers for several decades, though not for mercantile risks (Lucas & Wherry, 1954). The principal concern among mercantile operations was that the plan would provide excessive coverage, as the buildings occupied by such businesses could often be replaced or repaired in much less than a year, but the coinsurance clause would require large limits (based on long duration of losses) or impose penalties on the insured's recovery in the event of such a partial loss (Bardwell, 1982).

Single Item Gross Earnings Policy

As an alternative to the two item contribution plan, the single item gross earnings policy, or simply the gross earnings plan, was introduced for mercantile businesses in 1938. The key difference was that the two item contribution form treated ordinary payroll separately from the balance of the risk, which allowed for a split basis of coinsurance, to be applied separately to the two parts. Under the gross earnings plan, however, there was only one item and consequently a single basis for coinsurance (Lucas & Wherry, 1954). Similar plans followed for non-manufacturing businesses in 1940 and finally for manufacturing businesses in 1945. (It was still common to underwrite manufacturing business on the two item form and mercantile business on the gross earnings form.)[12] In parallel to the two item contribution plan underwritten on either

12. Over time, the "plans" became known as "forms," thus indicating the close link between the policies and the standardized forms on which they were underwritten.

From No. 1 or Form No. 2, gross earnings insurance was available on either Form No. 3 or Form No. 4.

Form No. 3 offered BI insurance for mercantile and non-manufacturing businesses, and Form No. 4 offered the coverage to manufacturing risks. Form No. 3 thus replaced lost sales, while Form No. 4 replaced lost production and required a "sales value of

excluded under the gross earnings plan and was subject to a single coinsurance

and 3) the simplified earnings plan.[19] The ease of use of the simplified earnings plan, however, meant that additional complexity (through a coinsurance requirement), if desired (perhaps for a lower rate), could only be introduced via the gross earnings form. Consequently, the gross earnings form soon allowed for greater flexibility in its approach to ordinary payroll and, as this was previously the distinguishing feature of the two item contribution form, the latter fell out of favor during the 1960s.

The gross earnings form thus offered the most complete form of business interruption coverage, although the standard policies made no allowance for business volumes prior to the interruption and merely provided coverage up to the day of reopening, without recognizing that pre-disruption volumes were unlikely to be regained immediately upon reopening. Later, the limit applied to the replacement

special multi-peril (SMP) policies, which included a loss of earnings endorsement. This provided business interruption coverage that was almost identical to that available under the simplified earnings plan.

Endorsements to Business Interruption

By the 1960s, several endorsements to standard business interruption policies were available. These endorsements satisfied the five criteria as summarized in Borghesi (1993):

Physical damage;

To insured property;

Caused by covered peril;

Resulting in a measurable loss due to interruption; and,

For the period required to expeditiously restore the damaged property.

To ensure that adequate premiums were charged, the various forms of coverage continued to include limits to reimbursements. Typically, a contribution clause (i.e., stipulating coinsurance) would be made part of the policy (Society of Chartered Property Casualty Underwriters, 1973). The most common endorsements, and a short description of each, are discussed below.

Whereas BI insurance covers additional expenditures only to the extent the insured's total loss is reduced, extra expense insurance covers the extraordinary expenses incurred by an interrupted business (due to a direct physical loss) that wishes to continue operations during the rehabilitation period even if that is more costly than discontinuing operations (subject to policy terms and limits). This endorsement was specifically introduced to cover industries where discontinuity in service is expected to result in a permanent loss, such as newspaper circulation (Lucas & Wherry, 1954). Extra expense coverage, therefore, provides additional coverage to BI insurance, with BI insurance generally being more appropriate when the business would not be expected to continue during the interruption, while extra expense insurance is appropriate when a business is expected to remain operational under emergency conditions. Extra expense insurance is also known as "surplus charges" or "additional charges and expense" insurance and has the same requirement of direct physical loss required in business interruption policies.[21]

This cover protects a lessee against loss resulting from the cancellation of a favorable lease because of a covered peril (Bardwell, 1982).[22] The insurer's liability is limited to

21. Extra expense coverage was ultimately added to standard business interruption policies, and "extra expense (only)" policies were introduced as separate policies.

22. If for any reason the rental value of property increases beyond the amount of rent that the lessee must pay, they are in possession of a favorable lease. The value of this leasehold is the difference between the rent payable for the remaining term of the lease and the present value of the property. This endorsement also now exists as a separate stand-alone policy.

the discounted value of the leasehold at the time of the loss, and the insurance is automatically reduced on a pro-rata basis each month, decreasing as the leasehold value or profit decreases. The insurer's risk depends largely upon the ease with which the lease in question may be cancelled. For this reason, a verbatim copy of the cancelation clause is made a part of the policy, and changes in the clause without the consent of the insurer are prohibited. Two types of leasehold insurance were commonly written, either for the undiscounted amount of the leasehold interest or for the discounted present value of leasehold interest.

As the phrase "use and occupancy" fell out of favor, rent insurance became regarded as a separate class of insurance, distinct from general BI insurance. Cover was still provided to protect a properqv owner against the loss of rental income (or occupancy if self-occupied) due to the properqv becoming "untenable" from an insured peril covered under a properqv insurance policy (Mowbray & Blanchard, 1969). Based on the terms of the underlying rental agreement, the tenant may also be the one purchasing the cover. Hence, cover was either provided for loss of income (by the owner) or loss of use (by the tenant).

Since BI insurance indemnifies for the loss of future earnings from interrupted production and properqv insurance indemnifies the cost of repairing/replacing damaged goods (but not their profits), this product covered the unrealized profits on damaged goods (Lucas & Wherry, 1954). This extended to goods that had been sold but not delivered. Policies either specified that the insured would recover the full profit on the lost goods (including partial loss) or only in proportion to damage sustained. This assumed that the same rate of profit can be realized on salvaged goods as on undamaged goods.[23]

An endorsement to business interruption policies applied only to sales agents, which covered the loss of net income resulting from an interruption in the business operaqions of the providers of the merchandise to be sold. This endorsement ofqen supplemented the gross earnings form as the manufacturing property (or properties) on which the sales agent was reliant had to be specified (Bardwell, 1982).

This coverage was an endorsement that provided indemnity against loss of remuneration thaq would have been received by employees if iq were not for the suspension of the 10Ta5 c50 10 o188.]TJ 10 0 0x to be spified (Bardwell, 194)..9 (e)5.8 (ed w iq r)18 (ece24 ofits

This endorsement covers actual loss of tuition fees sustained by academic institutions following damage or destruction of buildings by insured perils (Lucas & Wherry, 1954). If the damaged buildings or contents could not be rebuilt, repaired or replaced less than 30 days prior to the start of a new academic year, the period of interruption would be extended to the start of the subsequent academic year.

This was an alternative to the gross earnings policy that was available from the late 1970s on the west coast (only). Under these plans, three items of coverage were specified. Item I specified the coverage of net profit whereas Item II enumerated two groups of expenses, namely the remuneration of personnel, and fixed charges and expenses. To avoid ambiguity in the interpretation of the phrase "fixed charges," Item III allowed for the identification of specific expenses that were to be excluded from the fixed charges of Item II and insured separately (Bardwell, 1982). The full amount of the expenses enumerated under Item III were covered (as would be the case under a 100% contribution clause), subject to a limited period of interruption that was determined at policy inception.

As a precursor to event insurance, the 1950s also saw a novel consequential business interruption product known as rain insurance come to market. This policy was, however, not an endorsement to a standard property insurance policy and did not require direct physical damage or loss. Instead, the policy covered consequential losses arising from the cancelation or rescheduling of events due to rain, snow, sleet, or hail (Lucas & Wherry, 1954). Policies were often purchased to cover sporting or entertainment events, and in time, the insured perils became much broader than mere downpours. Similar consequential loss policies in place at the time would cover losses arising out of the interruption of power, light, and water facilities.

As computers became commonplace in commercial activities, they brought with them new perils to be insured. During May and June of 1969, BI insurance forms of most jurisdictions were revised to include a limitation for the loss of earnings resulting from the damage or destruction of media that were to be used in electronic data processing (EDP) (Bardwell, 1982). This media initially referred to paper tapes, punch cards, and magnetic disk, all of which were highly susceptible to destruction by physical perils. Coverage of the lost earnings while the pertinent media was being replaced or restored was initially limited to 30 days, although additional cover was available to extend this period to either 90 or 180 days or to waive the limit altogether.

Businessowners Policy Program

May 1, 1976, saw the nationwide implementation of the businessowners policy (BOP) program, which bundled BI insurance alongside basic property and liability cover for

small and medium-sized businesses (Policy Form & Manual Analysis Service, 1976).[24] When first introduced, it was seen as a novel product that took a homeowners insurance approach to the packaging of a broad range of insurance coverages at an indivisible package premium. It was thus viewed as an alternative to the SMP policy program that was in place at the time, which was more suitable for larger business that required greater flexibility in coverage.[25]

The initial BOP program offered two forms, either the standard or special form, with the crucial difference being that the standard form covered whereas the special form covered . Both forms included mandatory cover for loss of income, which was stipulated as "the actual business loss sustained by the insured and expenses necessarily incurred to resume normal business operation resulting from the interruption of business or untenability of the premises when building or personal property is damaged by an insured peril." It was further stipulated that the actual business loss may not exceed the reduction in gross earnings (less charges not necessarily continuing during the period of operation) and that loss of income benefits would be payable for the period required to resume normal operations, but not exceeding the period required to restore the damage and not exceeding 12 months from the date of loss. The loss of income coverage was thus not limited by the expiration of the policy period, nor did it include a stated limit or contribution (i.e., coinsurance or deductible) clause. It did, however, require the insured to resume normal operation as promptly as possible and use all available means to eliminate any unnecessary delay.

A notable shortcoming of the first standardized BOP form was that premium rating did not include a consideration of the past financial performance of the prospective insured, despite the mandatory loss of income coverage. The only rating factors of the original businessowners application/worksheet that had financial relevance

and EDP terminals in smaller business accounts for this limitation." In a sense, this then ushered in a new era such that by the time of the 2006 revision of the BOP, time-element coverage with an annual aggregate of $10,000 was included for the suspension of operations brought about by computer viruses and harmful code that disrupted computer and network operations (Krauss, 2010).

Business Income Insurance

On Jan. 1, 1986, the Insurance Services Office (ISO) introduced the business income coverage (BIC) form as an alternative to the gross earnings form (French, 2013). The BIC was designed to serve as an independent stand-alone policy, without the need to be attached to an underlying property insurance policy (although direct physical loss to property was and still is required). Thus, it was the first formal stand-alone business interruption policy in the U.S. Following the introduction of the BIC, BI insurance was often referred to as business insurance, as many believed that this gave a clearer indication of what this coverage protected.

The perils insured against under the BIC, together with limitations and exclusions, were specified in the three standard property cause of loss forms (i.e., Basic, Broad, and Special forms). Each of these forms constituted a list of perils and/or exclusions for which cover would be provided and, hence, offered policyholders a choice of coverage (Bisco, Fier, & Pooser, 2020).[27] Amendments to these forms were also allowed. BI insurance further retained the concept of actual loss sustained, although the first BIC form of 1986 recognized the difficulties in determining actual losses exactly and thus referred to the "actual loss of business income you sustain." The gross earnings and the business income forms remain the two most common business interruption forms in use. In theory, the amount of insurance coverage under the two policy forms should be equivalent, although the loss calculation methods differ significantly (French, 2013).

For business income policies, business interruption losses are determined as they were for simplified earnings plans, namely as the net profits (if not for the interruption) plus continuing expenses. In contrast, business interruption losses for gross earnings policies are determined as gross earnings (if not for the interruption) less saved variable expenses. The fact that neither policy is formula-based has led to litigation between policyholders and insurers, particularly on the issues of:

- The state of the economy.
- Trends in particular industries.
- The impact of a particular catastrophe on the local business climate.

Despite the move away from standardized forms, the insurance industry continued to categorize business income policyholders as either manufacturing or mercantile business entities, with the distinguishing difference being the use of the insured property. The inability to use or occupy property to raise sales or lease income would affect mercantile operations, while the inability to produce stock would affect the profits to be derived from the manufacturing process.

27. The special cause of loss form is an "open-peril" agreement that only lists exclusions.

On the other hand, insurance rates for BI insurance have shown evidence of an underwriting cycle that follows the general economic environment prevailing in the

standard commercial property insurance policies and insured separately under the federal government's National Flood Insurance Program (NFIP) or by endorsement.

A notable case was that of (2009), where the policyholder was the owner of an apartment complex that suffered a series of unfortunate events. First, a tornado struck the apartment complex two weeks before Hurricane Katrina and inflicted initial damage. Before any repairs had been made, Hurricane Katrina further decimated the complex. Then, while the post-Katrina repairs were underway, a fire broke out at the complex, halting the repair process. Once the repair process had recommenced, a motorist collided with an electrical transformer that supplied power to the building, causing a power outage. Ultimately, the repair process took almost two years to complete (Miller & Jean, 2010).

When claiming for lost rental income under a business income insurance policy, however, the insured and insurer could not agree on the value of the loss. The dispute revolved around the question of whether the Economy Considered principle should be applied in light of the increased rental values following the housing shortage brought about by Hurricane Katrina. To add to the conundrum, the policy included wind as a covered peril but specifically excluded flood as a covered cause of loss. Furthermore, lost profits due to favorable market conditions brought about by a covered peril, such as wind, were also explicitly excluded.

In this case, the court allowed for the policy language, apparently intended to preclude consideration of favorable post-loss business conditions, to be circumvented and ruled that since the policy did not expressly lost profits from an excluded cause of loss—in this case, flooding—the favorable post-Hurricane Katrina market conditions should be taken into account. Similarly, in the case of (2008), the Supreme Court of Louisiana affirmed the intermediate appellate court's ruling that in determining the policyholder's actual loss of business income, it should be interpreted to mean the amount the policyholder would have earned if their business had not been damaged by the hurricane, but the area around their business had been.

On the other end of the spectrum, however, was the ruling in (2010). The policyholder operated a casino that was damaged by Hurricane Katrina and subsequently shut down. However, it reopened while many of the neighboring casinos remained closed. Consequently, the casino produced revenues after reopening that exceeded pre-Katrina revenue. The policyholder accounted for this post-hurricane experience in determining their business interruption loss while the insurer's calculation was based purely on pre-hurricane experience.

The valuation language in the policy at issue stipulated that "due consideration shall be given to experience of the business before the loss and the probable experience thereafter had no loss occurred" (French, 2013). Ultimately, the court interpreted the phrase "probable experience thereafter" to mean the probable experience that the policyholder would have had post-catastrophe, based on the assumption that post-catastrophe experience would have been identical to pre-catastrophe experience. Since the valuation of business interruption losses under the existing policy language

may be speculative, different courts (and in some cases the same court) thus had different interpretations of how "probable experience" should be determined, often leaving it to the policyholder to prove what their hypothetical earnings and expenses would have been.

In addition to disagreement on whether post-loss economic conditions should be considered, the courts also reached inconsistent conclusions regarding whether and when certain expenses are recoverable under business interruption policies. In particular, the costs incurred by a policyholder in determining the amount of an insured loss, often known as "claim preparation fee allowances," is often subject to incomplete coverage. Where provisions relating to claim preparation fee allowances limited coverage to costs incurred either "at the request of" or "required by" the insurer, it was left to the insurer's discretion to determine the extent to which they would reimburse the policyholder for claim preparation services.

The valuation of business interruption losses in instances where the policyholder had been operating at a loss prior to the interruption and was projected to continue doing so if no interruption had occurred also adds complexity. Most unendorsed business interruption policies specify that the object of insurance is the net income that would have been earned during a period of suspended business operation if no physical loss or damage had occurred the continuing normal operating expenses incurred during the period of suspended operations (French, 2013). However, different courts have interpreted the meaning of the word "and" in the above sentence differently.

For example, in the case of (1992), the court ruled (and affirmed on appeal) that the insured loss should be determined by adding the net income and the continuing operating expenses. The court stated explicitly that if the net income is a negative number (i.e., a net loss), then the amount to be recovered should be the continuing operating expenses, reduced by the amount of the net loss. Thus, the court would allow the policyholder to recover an amount from the insurer only if the continuing fixed expenses exceed the amount of the net loss.

In contrast, however, in the case of (2010), the court ruled (and also affirmed on appeal) that the meaning of the word "and" was not the same as "plus," "offset," "subtract," or "minus" and that the policyholder was entitled to recover its continuing operating expenses any offset for projected negative net income. The policyholder thus recovered its continuing fixed expenses without any adjustment for the net loss that was expected had its business operations not been interrupted.

The interpretation of loss valuation language for policyholders that are projected to lose money throughout the policy term became particularly relevant following the 2008 financial crisis. Many insurers contended that policyholders suffering a business interruption during or shortly after the crisis suffered no loss at the hands of the interruption, as they would have been operating at a loss even if their business had not been interrupted (French, 2013).08).

As companies become networked operations with data warehouses, service platforms, and customer bases being their primary assets, cyber incidents emerged as a major cause of business interruption for companies. Whether resulting from basic system outages or sinister cyberattacks, business interruption following a cyber incident has become regarded as a key peril to which all businesses are exposed and which can

of insurance has proven to be challenging, as phrases such as "normal operations," "probable experience," "same quality of service," and "due diligence and dispatch" have often led to dispute. In turn, the time element of coverage, the concept of "actual loss sustained," and the principles of Economy Considered and Economy Ignored introduce some subjectivity to the settlement of business interruption claims. Understanding the history of this important source of coverage in the private insurance market and its development is important to insurance regulators and other policymakers who are wrestling with the way forward.

In addition, the businesses covered by BI insurance are non-static. As the economy has progressed, so too have the specifics of the coverage required and offered. With each new catastrophe, we are reminded that as the modern economy continues to grow more complex, the intricacies of BI insurance continue to deepen. While the policy forms and underlying businesses being covered continue to evolve, a review of the history and development of BI insurance is quick to reveal that there is indeed little new under the sun.

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