

Cambridge Centre for Risk Studies

Risk Management Solutions Inc.

Global Exposure Accumulation and Clash Project

MULTI-LINE INSURANCE EXPOSURE MANAGEMENT

Data Definitions

Document v1.0

Centre for
Risk Studies



UNIVERSITY OF
CAMBRIDGE
Judge Business School



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Global Exposure Accumulation and Clash Project

Multi-Line Insurance Exposure Management Data Definitions Document Version 1.0

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Part I: Data Definitions Document Overview

1. A Standardized Multi-Line Insurance Exposure Data Definitions Document

Cambridge Centre for Risk Studies (CCRS), in collaboration with Risk Management Solutions, Inc., (RMS), has coordinated the development of a multi-line data definitions document to ensure the consistent assessment of exposure across the main classes of insurance business.

A companion report to this document, *Challenges and Solutions for Enterprise Exposure Management*, describes the development process, and the use of the data definitions document in clash scenarios to demonstrate the use of the schema in loss modelling. Publications resulting from this project are listed in the project documents section at the end of this report, as well as information on where to find them.

1.1 Aims and Objectives

This data definitions document is designed to assess exposure in a consistent way across the most significant classes of insurance, across all geographical markets, in an open standard. The document provides a standard minimum set of exposure data attributes that enable insurance industry market participants, to:

- a) Provide a more comprehensive and standardized framework for monitoring and reporting exposure enterprise-wide and function as a system of record, for risk managers, brokers, consultants, and analysts;
- b) Improve interchanges of data between market players to refine risk transfer to reinsurers and other risk partners, reporting to regulators, and exchanging information for risk co-share, delegated authority, and bordereau activities;
- c) Apply accumulation risk model scenarios for classes of business that currently have less well-developed models available for them;
- d) Support clash model analysis for scenarios that impact multiple lines of insurance;

1.2 Data Definitions Principles

The following principles were agreed during the earliest rounds (v0.1) of the consultation process and guided the development of the data definitions document. They are described in further detail in the v0.1 consultation document, listed in the project documents section at the end of this report:

- Exposure and accumulation focus
- As simple as possible
- Make the data definitions hierarchical and extensible
- Asset descriptions combined with insurance coverage
- Make the data definitions compatible with other standards as far as possible

2. Consultation Document Process

This document was created through an extensive review of the industry, including literature reviews, industry interviews, and consultation documents. The project entailed:

- Review of 715 articles, reports and journals about exposure management
- Feedback from 130 insurance industry practitioners
- 27 insurance organizations, including regulators and rating agencies
- Interviews with 11 modelling companies, data providers and analysts

This process has been documented through the consultation documents, listed in the project documents section at the end of this report, leading up to the publication of the V1.0 document.

A summary of the consultation process is outlined overleaf.

a. Version 0.1: Principles and Prioritization

The first stage of the project involved setting out the key principles and prioritization of the classes of business for development of the data definitions. The version 0.1 consultation document describes the objectives of the project, provides an overview of current market practice, reviews the wide range of existing and proprietary data definitions for different classes of insurance that are presently available and how a data definitions can incorporate existing standards and current practice, and proposes a set of principles to be observed when designing the definitions.

This consultation document was distributed for review to the insurance community and made available online for public feedback. The views and feedback from the V0.1 document were integrated into the planning, phasing, and structure of the data definitions document.

b. Version 0.5: Outline Structure and Key Components

The second stage of the project proposed an outline structure for each class of business and defined the main categories of exposure data for each type of insurance. These are referred to as ‘dictionaries’ – lists of categories that can be applied to accounts to describe and classify pertinent information for accumulation purposes. This consultation document was distributed for review to the insurance community and made available online for public feedback. This document facilitated discussions with specialist underwriters, who were crucial in the development and refinement of the data definitions.

c. Version 0.9 Detailed Structure

The third stage of the project was a draft completed version data definitions, which incorporated the feedback from Version 0.5. It proposed the detailed content of a minimum data requirement and identified the contents of each dictionary and schedule. This consultation document was distributed for review by the insurance community and made available online for public feedback. This document facilitated further discussions with specialist underwriters, who were crucial in the development and refinement of the data definitions.

d. Version 1.0 Complete Data Definitions

The feedback from the consultation of version 0.9 has been consolidated into a final consensus, which is the basis for this V1.0 document. This document is considered the complete minimum data standard for each class of insurance and includes complete listings of field values and reference tables. The data definitions document prioritizes breadth (i.e. developing a standard and unified view across multiple classes of insurance business) over depth (i.e. the level of detail required to capture an insurance class).

This document is living, and future versions of the data definitions document are expected as the insurance industry continues to develop and grow.

3. Classes of Business

Class of business is defined as a grouping of types of insurance and coverages that shared a common exposure and perils.¹ For example, all marine vessels and cargo policies are captured in the Marine class of business. This is the highest classification level used in practice and proposed in this data definition. The next level of classification is a type of insurance. Workers’ Compensation is a type of insurance within the Casualty and Liability class of business and Commercial Property is a type of insurance within the Commercial Lines class of business. Further, key coverages were identified that are available in many classes of business, such as Physical Damage, Bodily Injury, Third Party Liability (called Bodily Injury and Physical Damage Liability),

¹ IRMI.com n.d.. This can also be called class of insurance, but for the purposes of this data definition we have used class of business

Legal Defense Costs, Medical payments, etc. where the naming has been kept consistent across all the classes of business. It is important to maintain a standard classification of class of business, types of insurance and coverages to ensure the integrity of the schema.

Existing exposure data definitions already exist for some classes of business, and have been in use for exposure management, accumulation loss modelling, and insurance analytics for many years. These include:

- Commercial Property
- Residential Property
- Workers Compensation
- Cyber Insurance²

These have been defined and evolved over the years to provide a consistent approach to measuring exposure. For this project, we have provided a data definitions document for an additional 14 classes of insurance, prioritized by the steering committee and community of insurance companies. The data definitions for these classes apply similar principles to those of the previously-existing exposure data schemas, to enable consistent metrics of exposure to be applied across the whole of a multi-line insurance portfolio.

This data definition document covers the following 14 broad classes of insurance business:

- A. Casualty and Liability
- B. Marine
- C. Energy
- D. Aviation
- E. Trade Credit
- F. Surety
- G. Life
- H. Health
- I. Agriculture
- J. Political and Security Risk
- K. Annuities and Pensions
- L. Personal Lines
- M. Commercial Lines
- N. Specialized Underwriting Classes

The universe of insurance exposure is described in more detail in *Challenges and Solutions for Enterprise Exposure Management*.

4. Data Definitions Structure

The data definitions document proposes a set of information that can be applied to an individual policy. A policy is an insurance contract with an insured party, either an organization or an individual. An insured party may represent an 'account' to an insurance practitioner, and an account may consist of several policies, possibly in different classes of insurance.

A policy may have additional schedules attached to it, such as lists of the assets or risk objects (such as people or products) that are being insured under that policy. The data definitions document proposes a minimum set of attributes for each of the assets or risk objects on the schedule.

The data definitions for each class of business includes of a number of 'dictionaries', or lists of defined categories that can be applied to account holder, policy, asset or risk object details to describe and classify information about them for accumulation purposes. These dictionaries are defined in the data definitions document for each class of business.

² In 2016 the Cambridge Centre for Risk Studies developed a Cyber Data Exposure Schema v1.0 that has been widely adopted in the market, specified in *Cyber Exposure Data Schema*, Cambridge Centre for Risk Studies (2016).

Within the data definitions document, dictionaries can either be general or class a business specific class. General tables (listed in section 1) are used across all classes of business. This allows for information to be referenced across multiple lines of business, such as account holder details, employee information, or policy particulars. Comparatively, there are class of business specific attribute tables (listed in Part II onwards), which list information only relevant to the class of business. This ensures that specialized information concerning class of business specific assets can be captured as extensions to the general asset tables, which follow.

Table 1 summarizes the dictionaries which are usually used, and the information contained, when using the data definitions document.

Table 1: Data Definitions Document Dictionary and Schedule Types

Dictionary Name	Schedule/ Dictionary Type	Information Included
Information About the Insured	General	Schedule regarding the insured individual or organization
Policy Level Exposure Capture	General	Schedule regarding the policy, including financial details, coverage inception and expiration, inclusions and exclusions
Type of Insurance and Coverage	Class Specific	Dictionaries regarding the accepted segmentation of the market into the range of insurance products offered to cover sets of assets and insurance needs with appropriate attentions. For each type of insurance, the data definitions document identifies the coverage type which would be applied, for example physical damage, liability, business interruption and so on.
Type of Asset	Class Specific	Dictionaries listing a hierarchical categorization of assets typically covered in the insurance type.
Locations Schedule	General	Schedule that captures location information about the asset. This can either be an individual location or an aggregate location, depending on the schedule used. This is presented in section 6.
General Asset Schedule	General	Schedule which captures basic information about a physical asset. This is presented in section 11.
Class of Business Specific Attribute of Asset or Location	Class Specific	Additional schedule table which list asset or location specific attributes that have major exposure implications that are not captured in the general tables.

Part II: Data Definitions General Table Structure

1. General Tables

This section describes the outline structure and key components of the exposure data definitions for all classes of business.

2. Information about the Insured (Account Holder)

Information about the insured will be collected at a primary level. All policies and classes of insurance can reference this table. We suggest that the information is desirable but not essential and will be filled in as available. Additional user defined fields can be added for specific organizational requirements.

Table 2: Information About the Insured (Account Holder)

Name (Common)	
Full Legal Name	
Organization Identifier Coding Information (Duns Number)	
Unique Identified (Insurance Organization Specific)	
Size of Company	Annual Revenue
	Total Number of Employees
	Total Payroll
	Annual Turnover
Activity/Business Sector of Company, NAICS Code ³	2012 Code
	2017 Code
Account Holder Classification ⁴	Company Size
	Geographical Jurisdiction
	Insurance Aggregation Business Sectors ⁵
Subsidiaries Schedule	
Counterparty Schedule	
Location	Street Address
	City
	State/County/Province
	Country (ISO3)
	Zip/Postal Code
	Longitude and Latitude or Location Well Known Text
Legal Jurisdiction of Location ⁶	Geometry (If Available)
	National State/Province
	County

³ For companies with multiple sector classifications, please provide the primary one. These data definitions could also capture a schedule of sectors if data is available and is required for modelling loss.

⁴ This section of the table to be determined based on other information provided in this table using the method outlined in *Cyber Exposure Data Schema*, Cambridge Centre for Risk Studies (2016).

⁵ Insurance Aggregation Business Sectors refers to the broad industry sector the insured fits best. This can be derived from other information provided in this table. A classification of business sectors into 20 primary classes for use in insurance aggregation was proposed in *Cyber Exposure Data Schema*, Cambridge Centre for Risk Studies (2016). This primary categorization has proven to be robust and useful, and is proposed for use more broadly in this data definitions document.

⁶ There are potential situations where you will need a list of the legal jurisdictions that a company operates in for liability modelling purposes.

	Country (ISO3)
Tax System	Tax System ID
	Tax System Name
	Tax System Description
	Tax Country ISO3
	Tax Number
Currency	Currency Date
	Currency Units
Credit Rating (Or Schedule of Credit Ratings)	

3. Policy Level Exposure Capture

The data definitions document proposes a set of information that will be applied to each individual policy. A policy is an insurance contract with an insured. For commercial lines, the insured is an organization. An insured may represent an 'account' to an insurance practitioner, and an account may consist of several policies.

The following information is proposed for each policy. The information is desirable but not essential and will be filled in as available. Additional user defined fields can be added to account for organizational specific requirements.

Table 3: Information About the Policy

Policy Number		
Account Holder Id		
Office		
Division		
Insurance Product Name		
Class of Business		
Type of Insurance Schedule		
Type of Coverage Schedule		
Claims Occurrence ⁷	Claims Made	
	Occurrence	
	Occurrence Notified	
Claims Trigger Pathway ⁸	Manifestation Trigger ⁹	
	Exposure Trigger ¹⁰	

⁷ Claims occurrence refers to how the claim is launched or recognized. This is particularly important for liability coverage, which has different policies specific to each type of claim occurrence.

⁸ Claims Trigger pathway refers to how the claim occurs. This is particularly important for Trade Credit, which requires this level of detail for underwriting and risk aggregation.

⁹ "Manifestation trigger theory says that the coverage trigger is the discovery of the injury or damage, so when the insured discovers that his or her vehicle is damaged the coverage applies. In some cases courts may differ on whether they use the actual date of the discovery, or if they use the time that the damage should have been discovered." (Investopedia.com 2015)

¹⁰ "Exposure trigger theory often applies to injuries that manifest over time, such as those caused by breathing in harmful chemicals. It may take years for the injury to appear, but courts may consider the original period of the exposure (e.g. when the injured party was first exposed to the chemicals)." (Investopedia.com 2015)

	Continuous Trigger ¹¹		
	Injury-In-Fact Trigger ¹²		
Type of Coverage in Policy	Scheduled Coverage		
	Blanket Coverage		
	Combination Coverage		
	Contingency Coverage ¹³	(Yes or No)	
Type of Legal Arrangement	Duty to Defend		
	Duty to Pay		
Civil Legal Liability Exposure ¹⁴			
Insured Asset Type ¹⁵	People		
	Property (Location)		
	Organization		
	Government		
	Product		
	Project		
	Event		
	IP		
Policy Financial Structure	Total Insured Value		
	Policy Co-Share Percent		
	Policy Attachment Point		
	Policy Self Insured Retention (SIR)		
	Policy Deductible		
	Total Policy Limit		
	Total Limit Type	Split Limit - Limit Per Person	
		Split Limit - Limit Per Occurrence	
		Combined Single Limit	
		Shrinking Limit	
	Aggregate Limit		
	Maximum Any One Life (MAOL)		
	Layer	Primary Layer	
		First Excess Layer	
Second Excess Layer			
Third Excess Layer			
Policy Exposure (Calculated Field Based on Values Above)			
Payment Term	Maximum Credit Period		

¹¹ "Continuous trigger theory states that a combination of trigger types – manifestation, exposure, and injury-in-fact – leads to an injury that develops over time. This type of trigger is used to ensure that the insurance company's obligations are not diluted." (Investopedia.com 2015)

¹² "Injury-in-fact theory says that the coverage trigger is the injury itself, so when the insured breaks his or her leg the liability insurance applies." (Investopedia.com 2015)

¹³ For Pensions and Annuities.

¹⁴ For liability policies we want to capture the legal exposure of the policy which is a collection of various civil tort claims like wrongful act, breach of duty; wrongful act, error and omission; misstatement; breach of confidentiality, etc.

¹⁵ This could also be a schedule of insured assets, in that a policy insurers both a company, people and IP.

		Maximum Extension Period
		Stop Shipment Period
Currency	Currency Date	
	Currency Units	
Units ¹⁶		
Policy Dates	Inception Date	
	Expiration Date	
	Policy Term	(Number of Days of Policy)
	Retroactive Date	
	Fully Retroactive Policy ¹⁷	(Yes or No)
Coverage Territory		
Location	Street Address	
	City	
	State/County/Province	
	Country	
	Postal Code	
Legal Jurisdiction of Location ¹⁸	State/Province	
	County	
	Country (ISO3)	
Inclusions Listing	LMA Wording	
	Named Peril(S)	
Exclusions Listing	LMA Wording	
	Named Peril(S)	
Cedent Name ¹⁹		
Terms and Conditions		
Blanket Coverage Details	(Text Field)	

4. Standard Coverage Information

This flexible table can be used to capture both coverage and sub-coverage information and asset level limits and deductibles.

Table 4: Standard Coverage Information

Policy Number	
Coverage Name	Sub-Coverage Name
Location ID	
Interest Codes ²⁰	

¹⁶ In case any of the financial structure above is not provided in a currency form.

¹⁷ Policies that are fully retroactive are termed historical coverage or full retroactive coverage.

¹⁸ This is the legal jurisdiction that the overall policy is covering, see location schedules for individual location jurisdiction information.

¹⁹ Only where applicable.

²⁰ Various regulator institutions have coding systems. For example, Lloyds of London has a series of risk codes which are used to describe risks consistently. This information should be captured at the coverage level. More information about the Lloyd's risk codes can be found at <https://www.lloyds.com/market-resources/underwriting/risk-codes>

Coverage Level Financial Structure	Total Insured Value (TIV)
	Sub-Attachment Point
	Sub-SIR
	Sub - Deductible
	Sub-Limit
Units	
Civil Legal Liability Exposure ²¹	

5. Named Perils

The following represents a sampling of the named perils for policies.

Table 5: Named Perils

All Risks	
Force Majeure	Fire
	Explosion
	Lightning
	Hail
	Storms
	Hurricane
	Flood
	Earthquake
	Landslide and Rock Slide
	Tornado
	Bird Strike
	Volcano
	Snow Storm
	Tsunami
	Smoke
Freezing	
Human Action	Terrorism
	Warfare
	Crime
	Physical Damage
	Fidelity and Liability
	Riots, Strikes and Civil Commotion
	Negligence
	Vandalism
Radioactive Contamination	

²¹ For liability policies we want to capture the legal exposure of the policy which is a collection of various civil tort claims like wrongful act, breach of duty; wrongful act, error and omission; misstatement; breach of confidentiality, etc. This can be captured at both the coverage level and the policy level.

6. Location Schedules

Property or locations are risk objects for various classes of business including Commercial Lines – Commercial Property and Personal Lines – Residential Property. Insurers might capture information on locations at an aggregate level or an individual level. If only the account holder's location is insured then the location information will be captured in the account holders table above, if multiple locations are insured than assume this information will be captured in a detailed location schedule.

Table 6: Individual Location Schedules

Policy Number	
Location ID	
Name of Facility	
Location	Street Address
	City
	State/County/Province
	Country (ISO3)
	Zip/Postal Code
	Regions
	Longitude and Latitude or Location Well Known Text
Legal Jurisdiction of Location	Geometry (If Available)
	State/Province
	County
Location Demographics	Country (ISO3)
	Square Footage
	Number of Employees
	Business Activity at Location
	Number of Beds (Hospitals)
	Number of Customers
Location Dates	Assets Under Management
	Date Location Was Built
	Inception Date of Location
Financial Information	Expiry Date of Location
	Total Insured Value
Activity/Business Sector of Company, Naics Code	Total Insured Value (Interest)
	2012 Code
Safety Record	2017 Code
Health Record	

Table 7: Aggregate Location Schedules

Policy Number	
Account Holder ID	
Total Number Locations	
General Location Information	Country (ISO3)
Legal Jurisdiction of Location	Country (ISO3)

7. Content Schedules

Further to the location schedule provided above, it is common in property related insurance to also capture a contents schedule, or a list of the insured items at a given location.

Table 8: Content Schedule

Policy Number
Location ID
Content ID
Content Name
Content Type
Content Description
Count
Year Purchased
Purchase Price
Book Value

8. Schedules of Professional People

Individual professionals are risk objects for various classes of business including Casualty Liability – Directors and Officers (D&O), Aviation – Airlines – Crew Members Liability, Commercial Lines – Business Travel Insurance, etc. Insurers might capture information on people at an aggregate level or an individual level.

Table 9: Individual Professional People Schedule

Policy Number
Employee ID
Forename Name
Surname Name
Date of Birth
Gender
Employment Location ID
Occupation ²²
Current Job Title
Compensation Pay
Compensation Other
Currency
Years at Company
Net Worth
Reports to Employee ID
Executive Level
Place Where the Employee was Hired
Employee's Place of Residence

²² Sector of Employment

Jurisdiction of the Employer's Domicile
Qualifications ²³

Table 10: Aggregate Professional People Schedule

Policy Number
Location ID
Number of Employees
Types of Roles
Average Salary
Currency

9. Schedules of Individual People

Individuals are risk objects for various classes of business including Life, Health, Personal and Commercial Travel Insurance, Personal or Group Accident, and Annuities and Pensions. Insurers might capture information on people at an aggregate level (for example total numbers and redemption value of policies, of insured people by categories of age, gender, etc.) or an individual level. We are only recommending description attributes for an individual person in version 1.0.

Table 11: Individual Personal People Schedules

Attribute	Sub-Attribute (1)	Sub-Attribute (2)	Sub-Attribute (3)
Policy Number			
Person ID			
Personal ID Numbers	Social Security		
	National Insurance Number		
	Others		
Forename Name			
Surname Name			
Date of Birth			
Age			
Gender			
Nationality			
Marital Status	Single		
	Married/ Registered Civil Partnership		
	Separated		
	Divorced		
	Widowed		
Type of insured	Individual, Family, Employee, etc.		
Dependent Information	Dependent Name		
Place of Residence	Street Address		
	City		

²³ Various qualifications can be listed depending on the profession and class and type of insurance. For Aviation, you would want to capture the qualification of the of Pilots/Captain.

	State/County/Province		
	Country		
	Postal Code/Zip Code		
Place of Work	Employer's Name		
	Employment Location ID		
Occupation ²⁴			
Sum Assured Amount			
Currency			
Health Rating Class (also called Underwriting Classes)	Medically Underwritten	Standard	
		Rated	Addition to Persons Age Multiplier to Mortality Rate
			Addition to Qx
	Preferred Insurance Rating	Tobacco	
		Non-Tobacco	
		Standard	
		Preferred	
		Super Preferred	

10. Product Schedules

“Products” are risk objects for various classes of business including Product Liability. Insurers might capture information on products at an aggregate level or an individual level. Below is a representation of the individual product schedule.

To capture the manufacturer details, if this is a location that is insured then the information will be in the location schedule. If this is a location that is not insured, then copy the locations schedule and call it a manufacturers' schedule and populate with the relevant information. The same logic applies for the suppliers' location information.

Table 12: Individual Product Schedule

Policy Number	
Product ID	
Product Name	
Patent Expiration, if applicable	
Average Unit Price	
Currency	
Place of Manufacture	Manufacturer Location ID ²⁵
	Supplier Location ID
	Manufacturing Process Name
Active Ingredients	Active Ingredient Name
	Active Ingredient Description
	Manufacturer Location ID

²⁴ Sector of Employment

²⁵ The location ID should tie back to a location in the location schedule if the manufacturing site is internal to the company. If it is external to the company then a supplier location ID should be assigned and information about the supplier should be captured.

	Supplier Location ID
	Manufacturing Process

11. General Asset Schedules

Assets are risk objects for various classes of business including Marine and Aviation Hull. Insurers might capture information on assets at an aggregate or an individual level. Below is a representation of the individual asset schedule.

Table 13: Asset Schedule

Policy Number	
Asset ID	
Asset Name	
Asset Type	
Location ID	
Product ID	
Asset Financial Information	Total Insured Value
	Value (Interest added)
	Cash Price
Currency	Currency Date
	Currency Units
Asset Timing	Inception Date of Asset
	Expiry Date of Asset

12. Organization Schedules

Organizations or Companies are risk objects for various classes of business including Casualty Liability. Insurers might capture information on organizations at an aggregate or an individual level. Below is a representation of the individual organization schedule.

Table 14: Organization Schedule

Policy Number	
Organization ID	
Company Name	
Location	Street Address
	City
	State/County/Province
	Country (ISO3)
	Zip/Postal Code
	Regions
	Longitude and Latitude or Location Well Known Text
Location Demographics	Geometry (if available)
	Number of Employees
	Business Activity at Location
	Number of Customers

Relationship to Account Holder	Principal ²⁶
	Named Counterparty ²⁷
Activity/Business Sector of Company, NAICS Code	2012 Code
	2017 Code
Credit Rating ²⁸	

13. Project Schedules

Projects are risk objects for various classes of business including Construction Wrap-Up. Insurers might capture information on organizations at an aggregate or an individual level. Below is a representation of the individual project schedule.

Table 15: Project Schedule

Policy Number	
Project ID	
Project Name	
Type of Project	
Location	Location ID
	On-Land Versus In-Sea
Project Timing	Start Date
	Target Completion Date
Current Status	
General Contractor Name	
Contract Value	

14. Event Schedules

Events are risk objects for various classes of business including Contingency/Event Cancellation Insurance within Specialized Classes of Underwriting and Political and Security Risk. Insurers might capture information on events at an aggregate or an individual level. Below is a representation of the individual events schedule.

Table 16: Event Schedule

Policy Number	
Event ID	
Event Name	
Event Type	
Event Description	
Venue	Venue ID
	Venue Name
	Indoor/Outdoor Venue
	Max Capacity
Event Timing	Target Start Date
	Length of Event

²⁶ For Surety policies.

²⁷ For Trade Credit policies.

²⁸ Or a schedule of credit ratings if considered more than one.

	Target End Date
Alcohol Served	
Attendance Restrictions	
Average Ticket Price	
Target Audience	

15. Trade Agreement Schedules

For Trade Credit and Structured Trade Credit insurance, we have found the following attributes are required to assess exposure.

Table 17: Trade Agreement Schedule

Policy Number	
Trade Agreement ID	
Types of Agreements	Trade Receivables
	Trade Payables
Total Insured Receivables Value	
Term (Days)	
Average Days of Sales Outstanding	
Provisions	180 Days Overdue
	360 Days Overdue

16. Contract Schedules

For Contract Frustration coverage, we have found the following attributes are required to assess exposure.

Table 18: Contract Schedule

Policy Number	
Contract ID	
Contract Name	
Contract Parties	
Contract Timing	Final Signature Date
	Start Date
	End Date
Contract Type	
Contract Value	
Terms and Conditions	
Blanket coverage details	<i>(text)</i>

Part III: Data Definitions for Individual Classes of Insurance

A. Casualty and Liability

Casualty liability insurance (Liability Insurance) encompasses a wide range of categories of insurance, triggered when an individual or organization causes losses or damages by their negligent acts or omissions. Liability Insurance covers various corporate legal exposures such as losses arising from third parties being injured on a company's premises, stock prices dropping due to negligence of directors and officers, to workers' compensation for injuries while on the job, to medical malpractice lawsuits.

When the damage to a person or property is caused by the failure of a person or organization to use reasonable care, this is considered negligence. This area of litigation focuses on tort law, a civil wrong, with legal arguments to determine fault based on a given outcome. Liability litigation generally deals with contributory negligence by corporations or directors but can also deal with breach of contracts and breach of statutes, such as workers' compensation laws.

The asset at risk for commercial casualty liability are the actions or non-actions of the legal entity of the organization or director, which is typically the policy holder. These actions or non-actions can translate into legal liabilities such as breach of duty and are called civil legal liability exposures in these data definitions.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2. Following the research, interviews and data gathering to develop the casualty and liability data definitions several attributes were added to the account holder:

- Subsidiaries schedule
- Counterparty schedule
- Legal jurisdiction of account holder

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the account holder can be found in Table 2. Following the research, interviews and data gathering to develop the casualty and liability data definitions several attributes were added to the account holder:

- Civil legal liability exposure
- Total limit type: split limit per person, split limit per occurrence, combined single limit, shrinking limit
- Policy dates: retroactive date
- Legal jurisdiction of the policy
- Type of legal arrangement: duty to defend or duty to pay²⁹

²⁹ A "duty to defend" policy is one where the insurer can select and pay for the defense counsel, while a "duty to pay" allows the policy holder to select their own counsel and the insurer will reimburse the insured. (Bregman 2000)

3. Types of Insurance and Coverages within Casualty and Liability

There are 15 unique types of casualty and liability insurance identified in the data definitions.

- 1) Commercial General Liability (CGL)
- 2) Public Liability
- 3) Personal Liability
- 4) Directors and Officers (D&O)
- 5) Fiduciary Liability
- 6) Legal Protection Insurance (LPI)
- 7) Workers' Compensation
- 8) Employer's Liability
- 9) Employment Practices Liability (EPL or EPLI)
- 10) Professional Liability/ Errors and Omissions/ Professional Indemnity
- 11) Product Liability
- 12) Pollution Liability/ Pollution Legal Liability (PLL)/ Environmental Impairment Liability (EIL)
- 13) Excess Liability
- 14) Umbrella Liability
- 15) Hazardous Workplace

3.1 Commercial General Liability (CGL)

Commercial General Liability (CGL) is “coverage for an insured when negligent acts and/or omissions result in bodily injury and/or physical damage on the premises of a business, when someone is injured as the result of using a product manufactured or distributed by a business, or when someone is injured in the general operations of a business.”³⁰ Further, it is an insurance policy that provides coverage to business organizations for “bodily injury, personal injury, and physical damage caused by the business’ operations, products, or injury that occurs on the business’ premises.”³¹

The coverages and sub-coverages listed for the premises liability sub-type are also available for the operations, product and completed operations liability sub-types.

Table 19: Commercial General Liability (CGL) Sub-Types of Insurance and Coverages

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Coverage
Commercial General Liability (CGL)	Premises Liability ³²	Coverage A — Bodily Injury and Physical Damage Liability ³³	Third-Party Bodily Injury
			Third-Party Physical Damage

³⁰ Kennedy n.d.

³¹ “Commercial General Liability (CGL)” 2014

³² Premises Liability is coverage for “harm occurring in a building or on the grounds of facility” (Kennedy n.d.). This is also called Property Owner Liability.

³³ Coverage A — Bodily Injury and Physical Damage Liability: “Under Coverage A the insurer agrees to pay damages that an insured becomes legally obligated to pay as damages arising from bodily injury or Physical damage to others (third parties). The insurer also has a duty to defend the insured against such claims subject to the terms and conditions of the policy.”(Kennedy n.d.)

		Coverage B — Personal and Advertising Injury Liability ³⁴	
		Coverage C — Medical Payments ³⁵	
	Operations Liability ³⁶	Coverage A — Bodily Injury and Physical Damage Liability	Third-Party Bodily Injury
			Third-Party Physical Damage
		Coverage B — Personal and Advertising Injury Liability	
	Product Liability ³⁷	Coverage C — Medical Payments	
		Coverage A — Bodily Injury and Physical Damage Liability	Third-Party Bodily Injury
			Third-Party Physical Damage
	Completed Operations Liability ³⁸	Coverage B — Personal and Advertising Injury Liability	
		Coverage C — Medical Payments	
		Coverage A — Bodily Injury and Physical Damage Liability	Third-Party Bodily Injury

3.2 Public Liability

Public Liability is coverage for businesses³⁷ for cases where a member of the public is injured or their property is damaged while they are on the business' premises.³⁹ This is the same as Premise Liability within CGL, but is a standalone policy for when a corporate does not want to or is not required to purchased CGL. It is also called Public Liability Insurance (PLI).

Table 20: Public Liability Sub-Types of Insurance and Coverages

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
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³⁴ Coverage B — Personal and Advertising Injury Liability: "Under Coverage B the insurer agrees to pay sums the insured becomes legally obligated to pay as damages arising from a personal and advertising injury which usually includes offenses such as misappropriation of another person/entity's advertising scheme, plan, or ideas; infringement of copyright rights of another; false imprisonment; wrongful eviction; false arrest; malicious prosecution; slander or libel. The insurer also agrees to provide the insured a defense for such claims that are covered by this coverage part." (Kennedy n.d.)

³⁵ Coverage C—Medical Payments: "Coverage C provides coverage for medical expenses arising from bodily injury on covered premises regardless of fault. The limit for this coverage is usually \$5,000 or \$10,000 and is used to pay for immediate or short term medical care to (1) prevent a minor injury from becoming a major medical issue, (2) demonstrate the insured's goodwill, and (3) lessen the likelihood of the injured party filing a liability claim. The acceptance of medical payments by an injured party does not preclude them from filing a liability claim against an insured."(Kennedy n.d.)

³⁶ Operations Liability is coverage for "acts of employee or agent causing damage to patient's or third-party's property."(Kennedy n.d.)

³⁷ Product Liability is coverage for "harm caused by products manufactured or place in stream of commerce." (Kennedy n.d.)

³⁸ Completed Operations Liability is "typically associated with construction trades for liability relating to work completed including materials provided."(Kennedy n.d.)

³⁹ Aviva n.d.

Public Liability	Premises Liability	Bodily Injury and Physical Damage Liability	Third-Party Bodily Injury
			Third-Party Physical Damage
		Personal and Advertising Injury Liability	
		Medical Payments	

3.3 Personal Liability

Personal liability is the same as public liability but for individuals/homeowners, it is also called third-party liability.

Table 21: Public Liability Sub-Types of Insurance and Coverages

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
Personal Liability	Premises Liability	Bodily Injury and Physical Damage Liability Physical	Third-Party Bodily Injury
			Third-Party Physical Damage

3.4 Directors and Officers

Directors and Officers (D&O) insurance provides “liability cover for company managers to protect them from claims which may arise from the decisions and actions taken within the scope of their regular decisions.”⁴⁰ There are four common coverages available in D&O policies, named to originally reflect which side they were on within the paper (Side A front, Side B back side and so on).⁴¹

Table 22: Directors and Officers (D&O) Subtypes of Insurance and Coverages

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
Directors and Officers (D&O)		Side A: Personal Liability Cover ⁴²	Excess Side A - DIC (Difference in Conditions) Management Liability Insurance ⁴³
			Employment Practices Liability (EPL or EPLI) ⁴⁴
			Fiduciary Liability ⁴⁵
		Side B: Company Reimbursement Cover ⁴⁶	

⁴⁰ Allianz 2010; Collins 2016

⁴¹ Allianz 2010

⁴² Side A - Personal Liability Cover: Provides liability cover for individual directors and officers who are not covered by a corporate policy or for situations where a corporation is bankrupt or where state law prohibits indemnification of employees by corporations. This cover will protect the director’s personal assets from exposure during a lawsuit should the corporation be or become bankrupt. (Allianz 2010)

⁴³ Excess Side A - DIC (Difference In Conditions) Management Liability Insurance: This provides excess coverage for Side A and covers any gaps in the tradition Side A. (Allianz 2010)

⁴⁴ See Employment Practices Liability type of insurance section for definition.

⁴⁵ See Fiduciary Liability type of insurance section for definition.

⁴⁶ Side B - Company Reimbursement Cover: Provides liability coverage for a corporation when it indemnifies the directors. (Allianz 2010)

		Side C: Securities Entity Cover ⁴⁷	
		Side D: Investigative costs relating to Side C ⁴⁸	

3.5 Fiduciary Liability

Fiduciary Liability is a specific coverage that protects fiduciaries/trustee of employee benefit plans from lawsuits alleging violations of the Employee Retirement Income Security Act of 1974. This coverage can be offered as part of a D&O policy or separately as a standalone product.

Table 23: Fiduciary Liability Sub-Types of Insurance and Coverages

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
Fiduciary Liability	Legal Costs ⁴⁹		

3.6 Legal Protection Insurance

Business Legal Protection Insurance (LPI) is further insurance to support litigation expenses, specifically for small and medium enterprises (SMEs) that don't have access to in-house council or for large enterprises who need additional cover.⁵⁰ It can also be called Corporate Legal Covers, Legal Expenses or Business Legal Expenses Insurance (LEI).

Table 24: Legal Expenses Sub-Types of Insurance and Coverages

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
Legal Protection Insurance (LPI)	Legal Costs	Legal Defense Costs ⁵¹	
		Court Costs	
		Expert Witness Costs	
		Settlement Awards	
		Compensation Awards	Punitive Damages

3.7 Workers' Compensation

Workers' compensation also called Statutory Workers Compensation, is coverage for injury or occupational disease "arising out of or in the course of employment".⁵² Workers' compensation is coverage that pays medical and cash or salary benefits to employees who are injured in the workplace.

In the US workers' compensation is coverage that pays medical and cash or salary benefits to employees who are injured in the workplace. In the US Employer's Liability is offered as an additional coverage (add-on) to workers' compensation policies or a standalone policy that covers any litigation arising from workers'

⁴⁷ Side C - Securities Entity Cover: Provides liability coverage to corporations for security lawsuits, such as shareholder or derivative lawsuits. Securities coverage applies to publicly traded companies and large private companies. Small private companies may be able to obtain broader "entity" coverage. (Allianz 2010)

⁴⁸ Side D - Investigative costs relating to Side C: Provides coverage for investigation costs related to derivative lawsuits. Allianz 2010

⁴⁹ See further breakdown of coverages captured in the Legal Protection Insurance section A3.6

⁵⁰ DASInsurance n.d.

⁵¹ Legal defense costs cover costs for solicitors, barristers and advocates. Also called lawyers or attorneys in non-UK jurisdictions.

⁵² Reavis 2012

compensation disputes that are taken to the state court/tribunals/committees. In Europe, an Employer's Liability policy will cover both the workers' compensation claims and the litigation expenses/settlements.

As exposure data is well defined for workers' compensation, this is not included in the scope of this data definition documentation. However, we recognize that this is where it sits within the exposure data categorization system.

3.8 Employer's Liability

Employer's Liability is a coverage add-on for workers' compensation policies that covers the cost of a lawsuit when an employee sues an employer due to a workplace injury. It will cover legal costs as well as judgement/settlements. US Workers' compensation statutory laws prevent lawsuits for damages such as medical costs and lost wages (special damages) but employees can sue if they think the employer could have prevented the injury (due to a negligent employer) or if they believe the employer intentionally caused it (willful and wanton negligence).

Table 25: Employer's Liability Sub-Types of Insurance and Coverage

Type of Insurance	Sub-Type of Insurance (1)	Type of Coverage	Sub-Type of Coverage
Employer's Liability		Cash Benefits	
		Medical Benefits	Disability Income Benefits (Indemnity Benefits)
			Rehabilitation
			Death Benefits/Life Benefits
	Legal Costs ⁵³		

3.9 Employment Practices Liability

Employment Practices Liability (EPL or EPLI) provides individual coverage for directors against wrongful termination, discrimination or sexual harassment. "Employment practices liability insurance can be bought as an extension of directors' and officers' liability insurance. It covers employee discrimination claims, e.g. for unfair dismissal, harassment, or failure to promote a person".⁵⁴ Further, EPL coverage is also sold as a standalone policy.

ELP policies cover employee to employee wrongful acts, when members of the public are involved a Third-Party Liability coverage will be needed. Additionally, as the timing of events may not fall within the dates of an insurance policy, a Prior Acts Coverage can be purchased.

Table 26: Employment Practices Liability Sub-Types of Insurance and Coverage

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
Employment Practices Liability (EPL or EPLI)	Legal Costs ⁵⁵		
		Third-Party Liability ⁵⁶	
		Prior Acts Coverage	

⁵³ See further breakdown of coverages captured in the Legal Protection Insurance section 3.6

⁵⁴ ABI n.d.

⁵⁵ See further breakdown of coverages captured in the Legal Protection Insurance section 3.6

⁵⁶ This covers cases where an employee causes harm to a customer, client or member of the public, with harm being harassment or discrimination.

3.10 Professional Liability/ Errors and Omissions/ Professional Indemnity

Professional indemnity insurance covers the cost of compensating clients for loss or damage resulting from negligent services or advice provided by a business or an individual.⁵⁷ Professional liability insurance is called 'professional indemnity insurance (PII) in the UK and Errors and Omissions (E&O) in the US. Tech E&O is coverage if the insured's product or software does not function as intended or expected. This is a professional liability coverage for errors and omissions should the insured perform a service for another organization.⁵⁸

Table 27: Professional Liability Sub-Types of Insurance and Coverage

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
Professional Liability/ Errors and Omissions/ Professional Indemnity	See List of Professional Liability Sub-Types	Physical Damage	
		Bodily Injury and Physical Damage Liability	Third-Party Physical Damage
		(Other Coverages) ⁵⁹	Third-Party Bodily Injury

During our desk research, we noted that insurers tend to offer professional liability policies for specific professions. Thus, we have captured the professions in the following schedule.

Table 28: Professional Liability Profession Schedule for Sub-Types of Insurance

Profession Name	Alternative Profession Name	Sub-Profession
Solicitors/Lawyers/Attorneys		
Bailiffs		
Private Investigators		
Debt Collection Agencies		
Notaries Public		
Insurance Agents		
Brokers		
Advisory/ Consulting Services		
Management Consultants		
Third-Party Business Administrators		
Employment Agents		
Real Estate Brokers		
Appraisers		
Home Inspectors		
Quality Control Specialists		
Non-Destructive Testing Analysts		
Media		
Not-For-Profits		
Accountants		
Architects		
Landscape Architects		

⁵⁷ ABI n.d.

⁵⁸ Rossi 2003

⁵⁹ There could potentially be additional coverages available depending on the Professional Liability policy, so please extend accordingly.

Chartered Surveyors		
Engineers		
Financial Advisers		
Environmental Professional		
Construction Contractors and Maintenance		General Contractors
		Plumbers
		Electricians
Tech E&O		Information Technology Service Providers
		Software Developers
		Website Developers
Medical Malpractice ⁶⁰	Medical Professional Liability	Medical Doctors
		Dentists
		Druggists/Pharmacists
		Beauticians
Hospital Professional Liability (HPL) ⁶¹		Other Healthcare Professionals

3.11 Product Liability

Product liability protects business from losses due to a faulty product causing damages to customers and other third parties.

Table 29: Product Liability Sub-Types of Insurance and Coverage

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
Product Liability		Bodily Injury and Physical Damage Liability	Third-Party Physical Damage
			Third-Party Bodily Injury

3.12 Pollution Liability

Pollution Liability (also called Pollution Legal Liability (PLL) and Environmental Impairment Liability (EIL)) is coverage for an event where a named pollutant escapes a facility and causes damage to the environment. Pollution Liability is also offered along with various marine, energy and aviation policies. It is featured in those data definitions as well.

⁶⁰ Medical malpractice is often referenced as if it is a type of insurance, but given these data definitions structures, we are recommending that it is a sub-type. Medical malpractice insurance provides “coverage for the acts, errors, and omissions of physicians and surgeons, encompassing physicians’ professional liability insurance, Hospital Professional Liability (HPL) insurance, and allied healthcare (e.g. nurses) professional liability insurance. Although most policies are written with a claims-made coverage trigger, such coverage is sometimes available on an occurrence basis. Typical exclusions are for: intentional/criminal acts, punitive damages, sexual misconduct, and specialized procedures (e.g., radial keratotomy) for which coverage may be “bought back” in return for additional premium. In addition to commercial insurers, medical malpractice coverage is also available in most states through physician-owned insurance companies known as “bedpan mutual.” (IRMI.com n.d.)

⁶¹ Hospital professional liability (HPL) insurance is “purchased by hospitals covering their liability for professional acts, errors, or omissions. HPL forms are usually written on a combined basis with Commercial General Liability (CGL) policies to avoid “grey area” situations in which coverage could apply under either policy. HPL forms cover hospital employees but not independent contractor staff physicians who have been granted admitting privileges. Rather, such individuals are required to maintain their own professional liability insurance. Retention levels under HPL forms are often substantial, with \$1 million self-insured retentions (SIRs) not uncommon for even small hospitals. The policies are normally written with a claims-made coverage trigger.” (RMI.com n.d.)

Table 30: Pollution Liability Sub-Types of Insurance and Coverage

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage	
Pollution Liability/ Pollution Legal Liability (PLL)/ Environmental Impairment Liability (EIL)		Incident Response Costs		
		Clean-up/Removal Costs		
		Sudden & Accidental Pollution		
	Regulatory Defense Coverage		Oil Pollution Act (OPA) Liability ⁶²	
			Offshore Pollution Liability Agreement (OPOL) ⁶³	
			Civil Penalties	
	Premises EIL		Bodily Injury and Physical Damage Liability	Third-Party Physical Damage
				Third-Party Bodily Injury
	Contractors EIL		Bodily Injury and Physical Damage Liability	Third-Party Physical Damage
				Third-Party Bodily Injury
	Site Specific Environmental Impairment		Underground Storage Tank Coverage	
			Remediation	
			Contractors Pollution	
			Investigation Costs	
		Criminal Fines		
		Contingent Business Interruption (CBI) ⁶⁴		

3.13 Excess Liability

Excess Liability insurance is liability coverage above and beyond the limits available in Commercial General Liability (CGL) or other liability types of insurance. There are no coverages listed here as they will mirror the coverages of the underlying liability policy. Excess Liability insurance is primarily for commercial insureds.

Table 31: Excess Liability Sub-Types of Insurance and Coverages

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
Excess Liability			

3.14 Umbrella Liability

Umbrella insurance is liability coverage above and beyond the limits available in various liability policies and extends the coverages available. It is primarily for homeowners to extend their Personal Liability limits and coverage.⁶⁵ However, we have found examples where Umbrella policies are provided to commercial insureds to extend their CGL, Business Auto and other policies.⁶⁶ There are no coverages listed here as they will mirror the coverages of the underlying liability policy and add additional coverages that are specific to that type of insurance.

⁶² This is a US regulation.

⁶³ This is a UK regulation.

⁶⁴ This covers loss of revenues and profits for third-parties.

⁶⁵ Investopedia.com 2008

⁶⁶ IRMI.com n.d.

Table 32: Umbrella Liability Sub-Types of Insurance and Coverages

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
Umbrella Liability			

3.15 Hazardous Workplace

Finally, during our data definitions research Hazardous Workplace insurance was captured as an important liability insurance specific to China and has been included in this data definitions document.

Table 33: Hazardous Workplace Sub-Types of Insurance and Coverages

Type of Insurance	Sub-Type of Insurance	Type of Coverage	Sub-Type of Coverage
Hazardous Workplace			

3.16 Asset Types Covered by Casualty and Liability Insurance

Assets which can be covered by Liability insurance are unlimited due to the nature of the coverage. Broadly speaking, we believe that they can be categorized as either a person, property, asset, product, organization, project or event. We do not believe that they require a dictionary for identification. The general policy information reflected in section 3 captures the information required for underwriting each of the asset types.

Further, in Liability Insurance we understand that the fundamental risk object of coverage is the civil legal liability exposure. These are the legal principles that liability policies are covering and relate to the assets captured.

Take the example of a company's share price falling due to the lack of oversight by a director within a company. Shareholders (the plaintiffs) are concerned about their financial loss and go after the corporation and the individual directors (the defendants). The plaintiffs need to prove gross negligence, which has four parts to the legal argument, as they believe that the director has a duty to oversee the company's activities in a manner that proactively prevents loss. First, they need to prove that there exists a duty owed to others; a duty to care. Second, they must show that the defendants breached this duty. Third, they must show causation; that a close causal link exists between the breach and the resulting loss. Fourth, they must show that injury or harm (referred to as damages) was done to the plaintiffs. Breach of duty is just one of several legal arguments in court and Liability Insurance policies tend to explicitly state which civil legal liability exposures the policy will cover. Thus, we are introducing this concept to the Liability data definitions. Following is the proposed list to include in the data definitions.

In the above example you will also need to capture information about the insured company and directors as this will aid in the assessment of risk.

Table 34: Civil Legal Liability Exposures

Exposure 1	Exposure 2
Wrongful Act	Breach of Duty (Negligence)
	Error or Omission
	Breach of Trust
	Breach of Confidentiality
	Breach of Warranty
	Breach of Contract (Unintentional)
	Breach of Duty to Warn
	Breach of Fiduciary Duty Resulting in Financial Losses or Bankruptcy

	Breach of Legislation
Misstatement or Misleading Statement	
Misrepresentation of Company Assets	
Misuse of Company Funds	
Insolvency	
Mergers and Acquisitions (M&A) And "Merger Objection" Lawsuits	
Infringement of Intellectual Property Rights	
Poaching of Competitor's Customers	
Lack of Corporate Governance	
Pollution Incident	
Product Liability	
Absolute Liability ⁶⁷	
Strict Liability ⁶⁸	
Fraud and Dishonesty	
Defamation	
Third-Party Injury, Illness or Death	
Third-Party Physical Damage	
Wrongful Death	
Wrongful Trading	
Employee Retirement Income Security Act (ERISA) lawsuits ⁶⁹	
Failure to Comply with Workplace Laws ⁷⁰	
Wrongful Termination ⁷¹	

3.17 Asset Attributes for Casualty and Liability Insurance

As mentioned in the previous section, the assets insured in Liability Insurance policies, can include a person, property, asset, product, organization, project or event. All attribute information is captured in the general tables in Section 1.

3.18 Aggregate Policies

There are several aggregate policies that can exist where several types of insurance are sold together as a package. These packaged policies can even span classes of business. The following sections outline the aggregate policies that we have considered.

Construction Wrap-up Insurance is similar to a commercial general liability policy in that it covers third-party bodily injury and physical damage as well as worker's compensation and pollution liability. It can also cover 1st party physical damage. It covers on-going construction projects and projects that are still within the defined number of years following completion in the policy.

Table 35: Construction Wrap Up Aggregate Policy

Aggregate Policies	Sub-Aggregate Policy	Type of Insurance
Construction Wrap Up	Owner-Controlled (OCIP) ⁷²	Commercial Property
		Commercial General Liability (CGL)

⁶⁷ Liability without fault, only proof of act needed not need to prove negligence. Mens rea not needed (i.e. no need to show intent of act). 'Mistake of fact' not an eligible defense.

⁶⁸ Same as Absolute liability, but the defendant can use 'mistake of fact' as defense.

⁶⁹ For employment-related lawsuits.

⁷⁰ For employment-related lawsuits.

⁷¹ For employment-related lawsuits.

⁷² Purchased by the owner of the project

		Excess Liability
		Umbrella Liability
Contractor-Controlled (CCIP) ⁷³		Builder's Risk
		Workers' Compensation
		Pollution Liability
		Railroad Protective Liability
		Builder's Risk (Course of Construction)
		Commercial Property
		Commercial General Liability (CGL)
		Excess Liability
		Umbrella Liability
		Builder's Risk
		Workers' Compensation
		Pollution Liability
		Contractors Professional Liability
		Railroad Protective Liability
		Builder's Risk (Course of Construction)
	Contractors Equipment Floater or Inland Marine ⁷⁴	
	Installation Floater	
	Subcontractor Default Insurance	

Contractors All Risk or Builders Risk Insurance is another aggregate policy offered to construction projects that covers first- and third-party physical damage and third-party bodily injury as well as workers compensation for contractors and subcontractors injured while on the job.

Table 36: Contractors All Risk (CAR) Aggregate Policy

Aggregate Policies	Sub-Aggregate Policy	Type of Insurance
Contractors All Risk (CAR)		Commercial Property
		Commercial General Liability (CGL)
		Public Liability
		Workers' compensation

Builder's Risk insurance is considered a specialized type of property insurance, also called Builders Insurance.⁷⁵

Table 37: Builder's Risk Aggregate Policy

Aggregate Policies	Sub-Aggregate Policy	Type of Insurance
Builder's Risk		Commercial Property
		Commercial General Liability (CGL)
		Public Liability
		Workers' compensation
		Employer's Liability

⁷³ Purchased by the general contractor

⁷⁴ Equipment floaters is for tolls and specialized equipment such as trailers, cranes, bulldozers, graders, forklifts, mobile tools. Inland marine is for tools and equipment transported to and from the job site.

⁷⁵ Vetsch 2009

Management Liability Insurance “covers exposures faced by directors, officers, managers, and business entities that arise from governance, finance, benefits, and management activities (also called "executive liability insurance").”⁷⁶

Table 38: Management Liability Insurance Aggregate Policy

Aggregate Policies	Sub-Aggregate Policy	Type of Insurance	Sub-Type of Insurance
Management Liability Insurance		Directors and Officers (D&O)	
		Employment Practices Liability (EPL)	
		Corporate Legal Covers	
		Fiduciary Liability	
		Security Risk/ Crisis Management	Kidnap & Ransom

A Corporate Package Policy (CPP) can combine several types of insurance into one policy to offer reduced premiums or organizations.

Table 39: Corporate Package Policy (CPP) Aggregate Policy

Aggregate Policies	Sub-Aggregate Policy	Type of Insurance
Corporate Package Policy		Commercial General Liability (CGL)
		Commercial Property
		Commercial Auto
		Commercial Crime

⁷⁶ IRMI.com n.d.

B. Marine

The marine market is one of the oldest classes of insurance, and is wide-ranging in its coverage and the assets it includes. It typically covers the loss or damage of ships, cargo, terminals, and any transport or cargo by which property is transferred, acquired, or held between the points of origin and destination. It can also extend to inland coverage, insuring transportation and communications infrastructure, and non-marine construction projects.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the policy can be found in Table 3.

3. Types of Insurance and Coverages within Marine Insurance

Marine insurance can broadly be categorized into either wet or dry marine. This relates to whether the insurance covers ocean marine assets (referred to as wet marine) or if it covers instrumentalities of land transportation, construction and communication (referred to as dry marine). Irregularities and exceptions exist in each group, but provide the first order of categorization within the data definitions.

3.1 Wet Marine

Wet marine typically refers to assets that are directly connected to the marine industry.

Wet marine consists of the following data definitions:

Table 40: Types of Insurance, Wet Marine

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Sub-Type of Insurance (5)	Type of Coverage	
Wet	Hull ⁷⁷	Hull & Machinery				Physical Damage	
						Total Loss	
			Liability	Collision Liability			Bodily Injury and Physical Damage Liability ⁷⁸
							Medical Payments

⁷⁷ Hull insurance provides coverage for losses due to damaged watercraft.

⁷⁸ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

						Removal of Debris and Wreck	
		Loss of Hire				Loss of Hire	
		Increased Value				Physical Damage	
						Sue and Labor	
		War				Physical Damage	
	Cargo ⁷⁹	Cargo in Transit				Physical Loss/ Damage	
							Consequential Loss
		Cargo in Storage				Physical Loss/ Damage	
							Consequential Loss
			Stock Through Put				Stock Through Put
	Marine Liability ⁸⁰		Liability	Pollution Liability ⁸¹			
				Protection and Indemnity	Poolable		
					Non Poolable		
				Riggers Liability			
		Commercial General Liability (CGL) ⁸²					
	Construction / Marine Builders Risk ⁸³	Hull & Machinery	Liability	Pollution Liability ⁸⁴			
				Product Liability			
				Collision Liability			Bodily Injury and Physical

⁷⁹ Cargo insurance provides coverage for physical losses or damage to freight.

⁸⁰ Marine Liability insurance provides coverage for liability risks within the marine industry.

⁸¹ Pollution liability is offered within Marine and Liability classes of business. This coverage is further fractioned in liability section 3.12.

⁸² Commercial General Liability is offered in many classes of business. This coverage is further fractioned in liability section 3.1

⁸³ Marine Builders Risk Insurance provides coverage for construction risk, typically relating to vessels.

⁸⁴ Pollution liability is offered within Marine and Liability classes of business. This coverage is further fractioned in liability section 3.12.

						Damage Liability ⁸⁵	
						Medical Payments	
					Protection and Indemnity	Poolable	
						Non Poolable	
						Physical Damage	
						Loss of Hire	
	Marinas, Ports and Terminals ⁸⁶	Single Coverage	Liability	Commercial General Liability (CGL) ⁸⁷	Operations Liability		
				Pollution Liability ⁸⁸			
				Professional Liability/ Errors and Omissions/ Professional Indemnity			
				Premises Liability		Bodily Injury and Physical Damage Liability ⁸⁹	
						Medical Payments	
				Marina Operators Legal Liability ⁹⁰			
Stevedore's Legal Liability ⁹¹							

⁸⁵ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

⁸⁶ Marinas, ports and terminals insurance provides coverage for marinas, ports, and terminals property, and business conducted on the premises.

⁸⁷ Commercial General Liability is offered in many classes of business. This coverage is further fractioned in liability section 3.1

⁸⁸ Pollution liability is offered within Marine and Liability classes of business. This coverage is further fractioned in liability section 3.12.

⁸⁹ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

⁹⁰ Within the V1.0 document, Marina Operators Legal Liability is captured as a sub-type of insurance. We are cognizant that more work needs to be done in V2.0 to ensure its correct placement and coverages are reflected.

⁹¹ Within the V1.0 document, Stevedore's Legal Liability is captured as a sub-type of insurance. We are cognizant that more work needs to be done in V2.0 to ensure its correct placement and coverages are reflected.

				Bailee Liability ⁹²			
				Warehouse Legal Liability ⁹³			
				Wharfingers Liability ⁹⁴			
						Physical Damage	
						Business Interruption (BI)	
		Combined Coverage Property	Liability	Pollution Liability ⁹⁵			
				Premises Liability			Bodily Injury and Physical Damage Liability ⁹⁶
							Medical Payments
							Physical Damage
							Business Interruption (BI)

3.2 Dry Marine

Dry marine typically refers to movable or specialized types of property. This can include land transport and communication infrastructure, construction projects and materials, and specie. The class is continuing to develop and is often unique to each insurer.

Dry marine consists of the following data definitions:

Table 41: Types of Insurance, Dry Marine

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Sub-Type of Insurance (5)	Type of Coverage
Dry	Specie ⁹⁷	General Specie				Physical Damage

⁹² Within the V1.0 document, Bailee Liability is captured as a sub-type of insurance. We are cognizant that more work needs to be done in V2.0 to ensure its correct placement and coverages are reflected.

⁹³ Warehouse liability is offered within both wet and dry types of insurance. This sub-type of insurance is further fractionated in the Dry Marine section, B3.2

⁹⁴ Within the V1.0 document, Wharfingers Liability is captured as a sub-type of insurance. We are cognizant that more work needs to be done in V2.0 to ensure its correct placement and coverages are reflected.

⁹⁵ Pollution liability is offered within Marine and Liability classes of business. This coverage is further fractionated in liability section A3.12

⁹⁶ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

⁹⁷ Specie insurance provides coverage to high value assets, which are portable. The value of the asset may change regularly.

		Fine Art				Physical Damage
		Jewelers Block				Physical Damage
		Cash in Transit				Physical Damage
	Inland ⁹⁸		Liability	Warehouse Legal Liability		Bodily Injury and Physical Damage Liability ⁹⁹
						Medical Payments
		Builders Risk ¹⁰⁰				Physical Damage
			Equipment			Physical Damage
		Contractors Equipment				Physical Damage
		Broadcast Equipment				Physical Damage
Motor Truck Cargo				Physical Damage		

3.3 Asset Types Covered by Marine Insurance

Assets covered by a marine insurance policy can be broadly categorized into several categories. These are outlined below.

Table 42: Marine Insurance Asset Types

Asset	Sub-Asset (1)	Sub-Asset (2)
Vessels	Tankers	
	Container Ships	
	Passenger Ships	
	Ferries and Cruise Liners	
	Bulk Vessels	
	Off Shore Vessels	
	Fishing Vessels	
	Pleasure Craft	
	Special Purpose Vessels	
Cargo	General Cargo	Automobiles
		Consumable
		Electronics

⁹⁸ Inland marine insurance provides coverage for instrumentalities of land transportation, communication and construction. The insurance is far reaching and varies widely depending on the insurer.

⁹⁹ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹⁰⁰ Builders Risk insurance is considered a specialized type of property insurance, also called Builders Insurance. The insurance can occur in both marine, commercial property and casualty and liability classes of business. This is outlined further in Table 37.

		Heavy Industry and Machinery
		Pharmaceuticals
		Livestock
		Other/General cargo
	Bulk	Break Bulk
		Dry Bulk
		Liquid Bulk
	Project Cargo and Specialist	Project Cargo
		Heavy Lift/Specialist Movement
		Satellite
Rolling Stock		
Incidental Coverages		
Marinas, Ports and Terminals	Sea Ports	
	Inland Ports	
	Shipyards	
Specie	General Specie	Precious Metals
		Valuable Documents (reconstitution coverage)
		General Specie
	Fine Art	Gallery (dealer)
		Private Collectors
	Jewelers Block	Trade Show
		Retail
Wholesale		
Cash in Transit		
Broadcasting Equipment	Telecommunication Tower	
	Antennas	
	Guy-wire	
	Telecommunication Cables	

3.4 Asset Attributes for Marine Insurance

Each asset insured has information collected regarding it. The asset table (Table 13) and location table (Table 6) list the minimum level of information collected for each asset. In addition to this, some assets require additional asset specific information to be collected. These assets, and their additional attributes, are listed below:

This is not an exhaustive list of all assets. It only includes assets that require additional attributes.

Table 43: Marine Specific Asset Attributes

Assets	Sub-Assets	Asset Attributes
Vessels		IMO Number
		Insured Value of Vessel
		Actual Value of Vessel
		Name of Vessel
		Type of Vessel
		Age of Vessel

		Size of Vessel (Tonnage)
General Cargo		Number of Storage Locations
		Policy Maximum, Storage
		Policy Maximum, Transit
		Policy Average, Storage
		Policy Average, Transit
		Construction Material
		Percentage of Cargo Insured
		Protective measures in place
		Transit Method
		Packing Method
		Number of TEU Units
	Automobiles	Brand of Automobile
		Model of Automobile
	Consumable	Temperature Controlled ¹⁰¹
		Perishability ¹⁰²
	Electronics	Theft Attractive ¹⁰³
	Heavy Industry and Machinery	Specialized Packing Precautions ¹⁰⁴
	Pharmaceuticals	Perishability ¹⁰⁵
		Handling Risk ¹⁰⁶
		Temperature Controlled ¹⁰⁷
Livestock	Breed/Type	
	Age at Date of Shipment	
	Reason for Shipment (Breeding/Slaughter/Other)	
	Animals Pregnant ¹⁰⁸	
	If Pregnant, How Many Months at Date of Shipment	
	Length of Quarantine	
	Location of Quarantine	
	Other/General cargo	
Bulk		Weight of Cargo
		Volume of Cargo
		Perishability
Project Cargo and Specialist	Project Cargo	
	Heavy Lift/Specialist Movement	

¹⁰¹ Yes/No response option

¹⁰² Perishability can either be measured as an ordinal scale (Low, Medium, High) or as a measure of time (Days/Months/Years)

¹⁰³ Yes/No response option

¹⁰⁴ Yes/No response option

¹⁰⁵ Perishability can either be measured as an ordinal scale (Low, Medium, High) or as a measure of time (Days/Months/Years)

¹⁰⁶ Yes/No response option

¹⁰⁷ Yes/No response option

¹⁰⁸ Yes/No response option

	Satellite	Model of Satellite
Rolling Stock		% Loaded (Average)
		Average Cars per Train
Marinas, Ports and Terminals		Total Number of Berths
		Port Area m2
		Gross Revenues USD
		Vessel Calls per Annum
		Days of Operation per Annum
		Policy Maximums
		Policy Average
		TEU Capacity
		Storage Capacity
		Port Type

3.5 Aggregate Policies

There are several aggregate policies that can exist where several types of insurance are sold together as a package. These packaged policies can even span classes of business. The following sections outline the aggregate policies that we have considered.

Terminal Operators Legal Liability is a far-reaching policy which covers third-party liability, operational liability, and potential fines and fees. It does not provide coverage for employees or personal injury. It is a common policy for large ports and terminal facilities, and often offers extensions to personalize the policy. Table 44 outlines the policy's potential coverages.

Table 44: Marine Aggregate Policy, Terminal Operators Legal Liability

Aggregate Policy	Potential Included Coverages ¹⁰⁹
Terminal Operators Legal Liability	Bodily Injury and Physical Damage Liability
	Operational Liability
	Fines and Penalties
	Pollution Liability
	Errors and Omissions
	Wreck Removal
	Freight Demurrage & Defense
	Tenants Legal Liability
	Consultancy Services Legal Liability
	Infringement of Personal Rights Liability
	Loss of Hire

Ship repairers' liability provides coverage for liabilities that a ship repairer may face, and for any damage which occurs to the vessel they are working on. The coverage can also cover third-party liability which arise during their operations.¹¹⁰ Additional extensions are available to personalize the policy. Table 45 outlines the policy's potential coverages.

¹⁰⁹ These coverages are adapted from ((Zurich 2013)

¹¹⁰ "Ship Repairer's Legal Liability" 2014

Table 45: Marine Aggregate Policy, Ship Repairers Liability

Aggregate Policy	Potential Included Coverages
Ship Repairers Liability	Physical Damage
	Fines and Penalties
	Wreck Removal
	Bodily Injury and Physical Damage Liability
	Pollution Liability
	Protection and Indemnity

Charterers Liability provides coverage for liabilities of care, custody and control of a chartering vessel. The coverage includes damage to hull, protection and indemnity insurance, and additional costs.¹¹¹ Table 46 outlines the policy's potential covers.

Table 46: Marine Aggregate Policy, Charterers Liability Insurance

Aggregate Policy	Potential Included Coverages
Charterers Liability Insurance	Protection and Indemnity
	Physical Damage
	Freight Demurrage & Defense

¹¹¹ "Charterers Liability Insurance" 2017

C. Energy

The energy insurance market serves the oil, petrochemical and renewable energy industry, and covers offshore and onshore risks for energy and related businesses.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the policy can be found in Table 3.

3. Types of Insurance and Coverages within Energy Insurance

Energy Insurance can be broadly categorized into three categories: upstream, downstream, and power and utilities. This categorization is generally based on whether the insurance is covering the production, refinement or distribution of energy resources. Upstream energy is also sometimes covered within the marine market, due to its marine location and risks. For consistency, the line is stored within the energy class of business within this report.

3.1 Upstream

Upstream energy insurance insures raw material extraction and production undertaken by exploration and production companies.¹¹² The term upstream references the part of the supply chain that is insured.

Upstream energy insurance consists of the following data definitions:

Table 47: Types of Insurance, Upstream Energy

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Sub-Type of Insurance (5)	Type of Coverage
Upstream (Offshore)	Exploration and Production					Physical Damage
						Removal of Debris and Wreck
						Excess Removal of Debris
						Sue and Labor
						Re-Drill
	Operators Extra Expense (OEE)					Control of Well
						Contingent OEE

¹¹² Kramer 2015

			Liability	Pollution Liability				
				Commercial General Liability (CGL)	Premises Liability	Bodily Injury and Physical Damage Liability ¹¹³		
						Medical Payments		
						Total Loss Only		
						Business Interruption (BI)		
						Contingent Business Interruption (CBI)		
						Physical Damage		
	Contractors						Removal of Debris and Wreck	
							Excess Removal of Debris and Wreck	
							Sue and Labor	
		Operators Extra Expense (OEE)						Re-Drill
								Control of Well
								Contingent OEE
			Liability	Pollution Liability				
				Commercial General Liability (CGL)	Premises Liability	Bodily Injury and Physical Damage Liability ¹¹⁴		
						Medical Payments		
				Professional Liability/ Errors and Omissions/ Professional Indemnity				
							Total Loss Only	
						Business Interruption (BI)		
						Contingent Business Interruption (CBI)		

¹¹³ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹¹⁴ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

						Physical Damage
						Removal of Debris and Wreck
						Excess Removal of Debris and Wreck
						Sue and Labor
	Construction	Operators Extra Expense (OEE)				Re-Drill
						Control of Well
						Contingent OEE
		Liability	Pollution Liability			
			Commercial General Liability (CGL)	Premises Liability		Bodily Injury and Physical Damage Liability ¹¹⁵
						Medical Payments
						Total Loss Only
						Business Interruption (BI)
						Contingent Business Interruption (CBI)

3.2 Downstream

Downstream energy insurance insures refineries and the distribution of energy resources. This includes the process of turning crude oil into usable products and transporting them to consumers.¹¹⁶ The term downstream references the part of the supply chain which is insured. Midstream is a middle ground between upstream and downstream processes and relates to the resource transportation and storage.¹¹⁷ Midstream insurance is nested beneath downstream insurance within this data definitions document.

Downstream energy insurance consists of the following data definitions:

Table 48: Types of Insurance, Downstream Energy

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Sub-Type of Insurance (5)	Type of Coverage
Downstream (Onshore)	Construction					Physical Damage
						Removal of Debris and Wreck

¹¹⁵ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹¹⁶ Kramer 2015

¹¹⁷ Kramer 2015

						Excess Removal of Debris and Wreck		
						Sue and Labor		
			Liability	Pollution Liability				
				Commercial General Liability (CGL)	Premises Liability	Bodily Injury and Physical Damage Liability ¹¹⁸		
						Medical Payments		
						Total Loss Only		
						Business Interruption (BI)		
						Contingent Business Interruption (CBI)		
Midstream						Physical Damage		
						Removal of Debris and Wreck		
						Excess Removal of Debris and Wreck		
						Sue and Labor		
				Liability	Pollution Liability			
					Commercial General Liability (CGL)	Premises Liability	Bodily Injury and Physical Damage Liability ¹¹⁹	
							Medical Payments	
							Total Loss Only	
							Business Interruption (BI)	
							Contingent Business Interruption (CBI)	

3.3 Power and Utilities

Power and utilities insurance provides coverage for assets and risks external of the traditional oil and gas industry. This includes, but is not limited to renewable energy, nuclear power, and cogeneration.

¹¹⁸ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹¹⁹ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

Power and Utilities insurance consists of the following data definitions:

Table 49: Types of Insurance, Power and Utilities

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Sub-Type of Insurance (5)	Type of Coverage	
Power & utilities	Construction					Physical Damage	
			Liability	Pollution Liability			
				Commercial General Liability (CGL)	Premises Liability	Bodily Injury and Physical Damage Liability ¹²⁰	
						Medical Payments	
						Total Loss Only	
						Business Interruption (BI)	
						Contingent Business Interruption (CBI)	
	Operations/ Generation						Physical Damage
			Liability	Pollution Liability			
				Commercial General Liability (CGL)	Premises Liability	Bodily Injury and Physical Damage Liability ¹²¹	
						Medical Payments	
						Total Loss Only	
						Business Interruption (BI)	
						Contingent Business Interruption (CBI)	

3.4 Asset Types Covered by Energy Insurance

Assets covered by an energy insurance policy differ broadly depending on the types insurance. Asset types are categorized by the types of insurance listed above for organizational purposes.

3.5 Upstream Energy

Table 50: Upstream Energy, Asset Types

Type of Asset	Sub-Type of Asset (1)	Sub-Type of Asset (2)
	Complex	Shallow Water Complex

¹²⁰ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹²¹ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

Upstream (Offshore)		Gravity Base Complex
		Compliant Tower (CT)
	Fixed Platform (FP)	Steel Jacket
		Concrete Caisson
		Floating Steel
		Floating Concrete
	Floating Production System (FPS)	Tension Leg Platform (TLP)
		Mini-Tension Leg Platform (Mini-TLP)
		SPAR Platform (SPAR)
		Subsea System (SS)
		Floating Production, Storage & Offloading System (FPSO)
	Mobile Units	Jack Up Mobile Production Units (MOPUS)
		Semi-Submersible Platform
		Semi-Submersible Production Units
		Jack-Up Drilling Rigs
		Drill Ships
	Unmanned Platforms	Normally Unmanned Installations (NUI)
		Conductor Support Systems
	Offshore Pipelines	
	Wells	
Onshore Assets	Land Rigs	
	Onshore Oil Field Assets	
	Storage	
Gas Processing Plant		
Terminal (Offshore)		
Miscellaneous/ Equipment		

3.6 Downstream Energy

Table 51: Downstream Energy, Asset Types

Type of Asset	Sub-Type of Asset (1)	Sub-Type of Asset (2)
Downstream (Onshore)	Pipelines & Rail	Gas Pipeline
		Oil Pipeline
		Rail Containers & Product
	Storage Facilities	Gas
		Oil
	Terminal (Onshore)	
	Fractionation Plant	
	Blending Plant	
	Liquid Natural Gas	Regasification Plant
		Liquefaction Plant
	Gas Processing Plant	
	Refinery	Complex

		Non-Complex
	Petrochemicals	Oil
		Gas
	Chemicals	Chemical Plant
	Oil Sands & Mining	Oil Sands Refinery
		SAGD (Steam Assisted Gravity Drainage) Facility
Mining Facility		

3.7 Power and Utilities

Table 52: Power and Utilities, Asset Types

Type of Asset	Sub-Type of Asset (1)	Sub-Type of Asset (2)	Sub-Type of Asset (3)
Power & utilities	Renewables	Solar	
		Wind	
		Geothermal	
		Marine Energy	Tidal
			Wave Generation
		Hydroelectric	
		Biomass	
	Osmosis		
	Non-Renewables	Gas	
		Fossil Fuel - Oil	
		Fossil Fuel - Diesel	
		Fossil Fuel - Coal	
		Power Barge	
		Nuclear	
		Cogeneration	
	Electricity Transmission and Distribution	Transmission Lines	
		Transmission Substations	
		Distribution Lines	
		Distribution Substations	

4. Asset Attributes for Energy Insurance

Each asset insured has information collected regarding it. The asset table (Table 13) and location table (Table 6) list the minimum level of information collected for each asset. In addition to this, some assets require additional asset specific information to be collected. These assets, and their additional attributes, are listed below. For organizational purposes, these assets and their attributes are organized by insurance type (outlined in section 43).

This is not an exhaustive list of all assets. It only includes assets that require additional attributes.

4.1 Upstream Energy

Table 53: Upstream Energy Asset, Specific Attributes

Type of Asset	Sub-Type of Asset	Asset Attributes
Upstream (Offshore)	Complex	Water Depth

		% of Complex Insured
Fixed Platform (FP)	Water Depth	
	% of Platform Insured	
	Airgap	
	Assured interest	
Floating Production System (FPS)	Water Depth	
	% of Platform Insured	
	Airgap	
	Assured interest	
Mobile Units	Water Depth	
	% Insured	
Unmanned platforms	Water Depth	
	% of Platform Insured	
	Airgap	
	Assured interest	
Offshore Pipelines	Pipeline Diameter	
	Length of Line	
	Capacity	
	Pipe Material	
	Geoline (for mapping)	
Wells	Well Depth	
	Well Type	
Onshore Assets	Water Depth	
	% Insured	
Terminal (Offshore)	Railcar Capacity	
	Modes Inbound	
	Modes Outbound	
	Product	
Miscellaneous/ Equipment	Item Description	

In addition to the attributes listed for specific assets, all upstream assets require the following attributes to be collected:

Table 54: Upstream Energy Asset, General Attributes

Type of Asset	Asset Attribute	Asset Sub-Attribute	
Upstream	Production Capacity		
	Number of People on Site (If Applicable)		
	Location (Name and ID)	Area	
		Field	
		Well(s)	
		Complex	
		Installation	

4.2 Downstream Energy

Table 55: Downstream Energy Asset, Specific Attributes

Type of Asset	Sub-Type of Asset (1)	Sub-Type of Asset (2)	Asset Attributes
Downstream	Pipelines & rail		Pipeline Diameter
			Length of Line
			Pipe Material
			Number of River Crossings
			Length Underground
			Length Overground
			Volume (Max Capacity)
			Refer to product table (Table 12)
	Storage		Roof Type (Fixed/ Floating)
	Chemicals	Chemical plant	Refer to product table (Table 12)
Oil Sands and Mining	Mining facility	Refer to product table (Table 12)	
Storage Facilities		Refer to product table (Table 12)	

In addition to the attributes listed for specific assets, all downstream assets require the following attributes to be collected:

Table 56: Downstream Energy Asset, General Attributes

Type of Asset	Asset Attribute
Downstream	Safety Measures in Place
	Details of Upstream suppliers ¹²²
	Loss Record
	Number of People on Site

4.3 Power and Utilities

Table 57: Power and Utilities Asset, Specific Attributes

Type of Asset	Sub-Type of Asset (1)	Sub-Type of Asset (2)	Asset Attributes	
Power & Utilities	Renewables	Wind	Windspeed Design Strength	
	Electricity Transmission and Distribution	Transmission Lines		Anti-Cascade Measures
				Length Underground
				Length Over Ground
				Voltage Carried
		Distribution Lines		Anti-Cascade Measures
				Length Underground
				Length Over Ground
				Voltage Carried

In addition to the attributes listed for specific assets, all power and utilities assets require the following attributes to be collected:

¹²² Upstream organizational details to be stored in organizations table, Table 14

Table 58: Power and Utilities Asset, General Attributes

Type of Asset	Asset Attribute
Power and Utilities	Safety Measures in Place
	Details of Upstream suppliers ¹²³
	Volume (Capacity)

5. Aggregate Policies

Erection All Risks (EAR) insurance is an aggregate policies that captures coverages from Casualty and Liability as well as Commercial Property. These policies cover non-US construction projects such as power plants and other heavy industrial projects. We noted during our schema research that this was referenced in energy portfolios often. This is sometimes called Construction All Risk (not the same as Contractors All Risk (CAR) detailed in Table 36).

Table 59: Erection All Risk (EAR) Aggregate Insurance Policy

Aggregate Policies	Sub-Aggregate Policy	Type of Insurance	Sub-Type of Insurance
Erection All Risks (EAR)		Commercial Property	
		Commercial General Liability (CGL)	Premises Liability
		Public Liability	
			Delay in Start-Up (DSU)

¹²³ Upstream organizational details to be stored in organizations table, Table 14

D. Aviation

First introduced in the 20th century, aviation insurance is a coverage geared specifically to the operation of aircraft and the risks involved in aviation. In 1911, Lloyd's of London wrote the first-ever aviation insurance policy. The first aviation policies were initially underwritten by the marine insurance community, with specialist insurers emerging in the mid-20s.¹²⁴ Today it typically covers damage that may occur to the physical parts of the plane, called the hull, as well as injuries that passengers or third-parties may suffer in the result of various events such as accidents or acts of terrorism.¹²⁵

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the policy can be found in Table 3.

3. Types of Insurance and Coverages within Aviation

Aviation insurance can broadly be categorized into Airlines, General Aviation, and Aerospace. This distinction is based on the size of the aircraft covered, with airlines covering large commercial passenger jets and general aviation relating primarily to light aircraft.

3.1 Airlines

Airlines provide air transport services for freight and passengers. These companies utilize aircraft as part of their business operations to supply transportation services. They vary in size from full-service international airlines to small domestic airlines and can be regional, domestic, international, or intercontinental.

Airline insurance consists of the following data definitions:

Table 60: Types of insurance, Airlines

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Type of Coverage
Airlines	Hull	Not in Motion Ground Risk Hull			Physical Damage
			Total Loss Only		Physical Damage
		In Motion Ground Risk Hull			Physical Damage
			Total Loss Only		Physical Damage
		In-Flight			Physical Damage
			Total Loss Only		Physical Damage

¹²⁴ "Our History | Global Aerospace Aviation Insurance" n.d.

¹²⁵ "Aviation Insurance - Types of Insurance" n.d.

	Liability		Liability	Passenger Liability/Passenger Admitted Liability	Medical Payments	
					Passenger Voluntary Settlement	
					Admitted Liability ¹²⁶	
				Public Liability/Aviation General Liability (AGL)	Bodily Injury and Physical Damage Liability ¹²⁷	
					Medical Payments	
				Pollution Liability		
		Grounding Liability				
	Aviation War Risk	Hull				Physical Damage
						Excess War Physical Damage
			Liability	Passenger Liability/Passenger Admitted Liability	Medical Payments	
					Passenger Voluntary Settlement	
					Admitted Liability	
				Third-Party War Risks	Bodily Injury and Physical Damage Liability ¹²⁸	
					Medical Payments	
					Excess War Liability	
	Cargo				Physical Damage	
	Spares				Physical Damage	
	Aircraft Crew Personal Accident Cover ¹²⁹					

¹²⁶ "An aviation specific coverage for passengers or guests aboard aircraft, which precludes the need for those guests or passengers to prove the liability of the insured owner or operator of the aircraft to recover for damages suffered in an accident. This coverage is normally written with a maximum limit per seat, and the passenger or guest can recover up to that amount." ("Admitted Liability" n.d.)

¹²⁷ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹²⁸ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹²⁹ Although it can be found in aviation insurance, this report considers personal accident insurance as a type of insurance within Personal Lines Class of Business. Further information and fractionation of this sub-type of insurance can be found in section G.

3.2 General Aviation

General aviation does not include scheduled passenger airlines – it covers all other civilian flying. This is a far-reaching category, covering medical transport, flight training, business travel, aerial mapping, agricultural aviation, aerial firefighting, sightseeing, personal travel, aerial law enforcement, search and rescue, and recreational flying.¹³⁰

General aviation insurance consists of the following data definitions.

Table 61: Types of Insurance, General Aviation

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Type of Coverage	
General Aviation	Hull	Not in Motion Ground Risk Hull			Physical Damage	
			Total Loss Only		Physical Damage	
		In Motion Ground Risk Hull			Physical Damage	
			Total Loss Only		Physical Damage	
		In-Flight			Physical Damage	
			Total Loss Only		Physical Damage	
	Liability			Liability	Passenger Liability/Passenger Admitted Liability	Medical Payments
						Passenger Voluntary Settlement
						Admitted Liability
				Liability	Public Liability/Aviation General Liability (AGL)	Bodily Injury and Physical Damage Liability ¹³¹
						Medical Payments
						Pollution Liability
						Grounding Liability
		Aviation War Risk	Hull			
						Excess War Physical Damage
			Liability	Passenger Liability/Passenger Admitted Liability		Medical Payments
						Passenger Voluntary Settlement
						Admitted Liability
					Third-Party War Risks	Bodily Injury and Physical

¹³⁰ "What Is General Aviation?" n.d.

¹³¹ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

					Damage Liability ¹³²
					Medical Payments
					Excess War Liability
	Cargo ¹³³				Physical Damage
	Spares				Physical Damage
	Aircraft Crew Personal Accident Cover ¹³⁴				

3.3 Aerospace

The aerospace industry is concerned with the production and operation of aircraft and spacecraft.¹³⁵ Drones are also found in this type of insurance.

Aerospace consists of the following data definitions:

Table 62: Types of Insurance, Aerospace

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Type of Coverage
Aerospace	Drones ¹³⁶				Physical Damage
			Liability	Public Liability/ Aviation General Liability (AGL)	Bodily Injury and Physical Damage Liability ¹³⁷
					Medical Payments
				Product Liability	
	Aerospace Product Liability		Liability	Product Liability	
	Airport Owners and Operators	Airport Owners Liability	Liability	Public Liability/ Aviation General Liability (AGL)	Bodily Injury and Physical Damage Liability ¹³⁸
					Medical Payments
	Hangars		Liability	Pollution Liability	

¹³² Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹³³ Although it can be found in aviation insurance, this report considers cargo insurance as a type of insurance within Marine Class of Business. Further information and fractionation of this sub-type of insurance can be found in section 3.1

¹³⁴ Although it can be found in aviation insurance, this report considers personal accident insurance as a type of insurance within Personal Lines Class of Business. Further information and fractionation of this sub-type of insurance can be found in section g.

¹³⁵ "Aerospace" n.d.

¹³⁶ A drone is a small, unmanned aircraft made of light materials to increase its maneuverability. They have gained popularity as recreational toys in recent years but serve many functions, including military and journalistic. (Corrigan 2018)

¹³⁷ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹³⁸ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

				Premises Liability	Bodily Injury and Physical Damage Liability ¹³⁹		
					Medical Payments		
					Physical Damage		
					Physical Damage		
	Fuel and Refueling Facilities		Liability		Public Liability/Aviation General Liability (AGL)	Bodily Injury and Physical Damage Liability ¹⁴⁰	
						Medical Payments	
						Pollution Liability	
						Product Liability	

3.4 Asset Types Covered by Aviation Insurance

Assets that can be covered by aviation insurance are shown below. Broadly speaking, we believe that they can be categorized as either for business operations, for hire, or for recreation. The aviation sector and technologies have a wide variety of uses with a global reach, so this list of sub-assets is not exhaustive.

Assets can be physical objects, such as the hull of the plane itself, or people. Qualifications of pilots is an additional attribute which is potentially needed in this class of business and has been reflected in the professional peoples schedule (Table 9).

Table 63: Aviation Insurance Asset Types

Asset	Sub-Asset (1)	Sub-Asset (2)	
Motorized Aircraft	Helicopter		
	Micro-Airplanes		
	Single or double seater airplanes		
	Medium size airplanes (≤ 50 Passengers)		
	Large Airplanes (≤ 400 Passengers)		
	Extra Large Airplanes (>400 Passengers)		
	Cargo Planes		
	Unmanned Aerial Vehicle	Close range	
		Short Range	
		Mid-range	
Endurance			
Other Motorized Aircraft			
Motor-Free Aircraft			
	Gliders		
Aircraft Spares	Rotables		

¹³⁹ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹⁴⁰ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

	Repairables	
	Expendables	
	Consumables	
Hangars		
Fuel and Refueling Facilities		
Cargo ¹⁴¹		

3.5 Asset Attributes for Aviation Insurance

Each asset insured has information collected regarding it. The asset table (Table 13) and location table (Table 6) list the minimum level of information collected for each asset. In addition to this, some assets require additional asset specific information to be collected. These assets, and their additional attributes, are listed below:

This is not an exhaustive list of all assets. It only includes assets which require additional attributes.

Table 64: Aviation-Specific Asset Attributes

Asset	Asset Attributes
Motorized Aircraft	Type of Aircraft
	Use of Aircraft ¹⁴²
	Year Built
	Model of Aircraft
	Flight Range
	Overall Maintenance Status
	Operator's Domicile
	Number of Passenger Seats
	Estimated Hours Flown Annually
Motor-Free Aircraft	Type of Aircraft
	Use of Aircraft ¹⁴³
	Year Built
	Model of Aircraft
	Flight Range
	Overall Maintenance Status
	Operator's Domicile
	Number of Passenger Seats
	Estimated hours flown annually
Hangars	Square Area of Facilities
	Type of Aircraft Stored
	Maximum Aircraft Capacity
Fuel and Refueling Facilities	Value of Fuel (annual)
	Square Area of Facilities

¹⁴¹ Types of cargo assets, and their associated attributes, can be found in B3.3 and B3.4 respectively.

¹⁴² The use of aircraft dictionary is listed in Table 65

¹⁴³ The use of aircraft dictionary is listed in Table 65

The use of aircraft is a fundamental attribute when assessing its risk. Potential uses are summarized in Table 65.

Table 65: Use of Aircraft

Aircraft Use	Aircraft Sub-Use (1)	Aircraft Sub-Use (2)
Commercial Air Transport	Charter	
		Passenger
		Cargo
	Scheduled	
		Passenger
		Cargo
General Aviation	Instructional Flying	
	Aerial Work	Application
		Observation
	Military	
	Air Medical/Police	
	Pleasure Flying	

When insuring an airline, the airline organization is the account holder. In addition to information collected about the account holder listed in Table 2, the following information may also be collected.

Table 66: Additional Airline-Specific Account Holder Information

Asset	Asset Attributes
Airline	Aviation Tier
	Number of operating aircraft
	Average Fleet Value
	Geographic Hub
	Schedule of airports served, by traffic volume
	Number of Passengers (Annually)
	Number of Seats (Average)
	Revenue per Km
	Location of Hub
	Officers Domicile
	Flight Schedules
	Domicile of Insured

E. Trade Credit

Trade credit insurance is a form of business insurance that provides coverage against the risk of not being paid for goods or services sold by the insured. This non-payment can be due to either commercial or political risks. This section only focuses on commercial trade credit insurance. Political Risk Trade Credit insurance is found within Political Risk and Security. Trade credit is applicable to all sizes of businesses and is seen internationally in the business community. In addition to providing financial insurance, trade credit insurance can also provide risk management services through various market monitoring initiatives.

Trade credit operates differently than other forms of insurance seen within the project, with different actors and structures. As a result, trade credit has a variation of the structure described in the introduction.

Considering actors within the agreement, a table is required for both the insured and the counterparty.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Counterparty

The counterparty is the buyer in the trade credit relationship. The counterparty information is stored within the organization's schedule, which is a general table consistent across each class of business. This allows the counterparty to be linked to other policies and classes of business within the data definitions. Information collected about the counterparty can be found in Table 14.

3. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the policy can be found in Table 3.

The policy table is designed to be used as widely as possible, therefore not all the fields are applicable to trade credit insurance. Available information should be included, and remaining fields should be left blank.

4. Types of Trade Credit Insurance

Trade credit Insurance can be broadly categorized being single buyer or multi-buyer. This relates to the number of transactions the policy covers and can dictate the suggested length and limits of the policy. These types of trade credit insurance are discussed in further detail below.

4.1 Single Buyer

Single buyer trade credit insurance insures one transaction, or one buyer. There is less risk involved in single buyer insurance, which allows for a longer contract term.

Single buyer consists of the following data definitions.¹⁴⁴

¹⁴⁴ These data definitions are based on the material published by International Risk Consultants. See IRC n.d.

Table 67: Types of Insurance and Coverages, Single Buyer

Type of Insurance	Sub-Type of Insurance (1)	Type of Coverage
Single Buyer	Short Term (less than a year)	Non-payment
		Non-delivery
		Non-honoring
	Medium term (one to five years)	Non-payment
		Non-delivery
		Non-honoring
	Long Term (over five years)	Non-payment
		Non-delivery
		Non-honoring

4.2 Multi-Buyer

Multi-buyer trade credit insurance insurers one portfolio of buyers. There is higher risk involved in this, and typically more options for customization of the policy.

Multi-Buyer consists of the following data definitions:¹⁴⁵

Table 68: Types of Insurance, Multi-Buyer

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Type of Coverage
Multi-Buyer	Whole-Turnover	Export	Non-payment
			Non-delivery
			Non-honoring
		Domestic	Non-payment
			Non-delivery
			Non-honoring
	Combined	Non-payment	
		Non-delivery	
		Non-honoring	
	Select Risk		Non-payment
			Non-delivery
			Non-honoring
Key Account		Non-payment	
		Non-delivery	
		Non-honoring	

5. Asset Types Covered by Trade Credit Insurance

Within a trade credit insurance, the asset, or item at risk, is the trade contract. This can be categorized as either trade receivables or trade payables.

¹⁴⁵ These data definitions are based on the material published by International Risk Consultants. See: IRC n.d.

Table 69: Trade Credit Asset Types

Asset Type	Asset Sub-Type
Trade Agreement	Trade Receivables
	Trade Payables

6. Asset Attributes for Trade Credit Insurance

The risk object for the trade credit policies is the trade agreement itself. As this attribute table is shared with the Political and Security Risk class of business, we have included it in the general tables section. Please see Table 17.

F. Surety

Surety (or Surety Bonds) are a different type of insurance exposure, as they consist of a financial bond, handled within the insurance market, involving other parties, not just the insured. The insurer acts as a surety to guarantee the obligee (the recipient of an obligation) that the principal (the primary party who will perform the task) can complete the task as agreed within the contract.

Surety operates differently than insurance, with different actors, partnerships, and structures. As a result, surety has a variation of the structure described in the introduction.

The actors within the agreement require separate tables to define them. A table of attributes is required for both the principal and obligee. The principal is the party with whom the insurer interacts and who applies for the bond, while the obligee is receiving the risk transfer to the insurance organization.

1. Information about the Principal

This data definitions document suggests that information stored about the principal is comparable to information stored about the account holder. This table is stored as a general table, which maintains consistency across each class of business. Information collected about the principal is stored in the accounts table, Table 2.

2. Information about the Obligee

Information available about the obligee varies depending on the insurer and contract. These data definitions store all information available about the obligee in the general organizations schedule, Table 14. In keeping this information in a general table, consistency is maintained across each class of business, allowing the obligee to be linked to other policies and classes of business within the data definitions.

3. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the policy can be found in Table 3.

The policy table is designed to be used as widely as possible, therefore not all the fields are applicable to a surety bond. Available information should be included, and remaining fields should be left blank.

4. Types of Surety Bonds

There are many types of surety bonds, depending on who the bond is for, and the nature of the obligation. The data definitions break surety bonds into six broad types, described below.

4.1 Contract Bonds

Contract Bonds, also called Contractual Obligations and Construction Bonds, are a type of surety bonds which ensure that a construction contract will be met.

Contract Surety Bonds consists of the following data definitions:

Table 70: Types of Surety Bonds, Contract

Type of Surety Bond	Sub-Type of Surety Bond (1)	Sub-Type of Surety Bond (2)
Contract Surety Bonds (Also Called Contractual Obligations and Construction Bond)	Private Contract Bond	Bid Bond
		Performance Bond
		Payment Bond

		Maintenance Bond
		Advanced Payment Bond
	Public Contract Bond	Bid Bond
		Performance Bond
		Payment Bond
		Maintenance Bond
		Advanced Payment Bond

4.2 Commercial Bonds

Commercial Bonds are a type of surety bonds which ensure that licensed companies will comply with required codes and statutes

Commercial Bonds consists of the following data definitions:

Table 71: Types of Surety Bonds, Commercial

Type of Surety Bond	Sub-Type of Surety Bond (1)	Sub-Type of Surety Bond (2)	
Commercial Surety Bonds	License and Permit Bond		
	Mortgage Broker Bond		
	Other Commercial Surety Bonds	Liquor Bond	
		Utility Bond	
		Warehouse Bond	
		Auctioneer Bond	
		Lottery Bond	
		Fuel Tax Bind	
		ARC Bond	
		Auto Dealer Bond	
AG Dealer Bond			

4.3 Fidelity Bonds (Third-Party)

Fidelity Bonds are a type of surety bonds that protect companies and their customers from their employee damage or mismanagement. Fidelity bonds can be either first party or third-party bonds. Third-Party fidelity bonds protect businesses from wrongful acts taken by people who are working for them in a contractual agreement, such as consultants or contractors. First Party fidelity bonds protect businesses from wrongful acts taken by their employees. First party fidelity bonds are not a form of surety and are instead a more traditional form of insurance. The data definition for first party fidelity bonds are found in section M3.5.

Table 72: Types of Surety Bonds, Fidelity

Type of Surety Bond
Fidelity Bond (Third-Party)

4.4 Court Bonds

Court Bonds are a type of surety bonds which ensures that responsibilities are upheld during a court of law, or while pursuing action within court.

Court Bonds consists of the following data definitions:

Table 73: Types of Surety Bonds, Court

Type of Surety Bond	Sub-Type of Surety Bond (1)	Sub-Type of Surety Bond (2)	Sub-Type of Surety Bond (3)	
Court Bonds	Fiduciary bond	Custodian Bond		
		Executor Bond		
		Administrator Bend		
		Guardianship Bond		
		Nominal Bond of Personal Representative		
		Probate Bond		
		VA Fiduciary Bond		
	Judicial Bonds	Defendant Bonds		Bail Bonds
				Appeal Bonds
				Counter-Replevin Bonds
				Release of Lien Bonds
		Plaintiff Bonds		Attachment Bonds
				Claims and Delivery Bonds
				Cost Bond
				Indemnity to Sheriff Bonds
				Injunction Bonds
				Replevin Bonds

4.5 Tax Bonds

Tax Bonds, also referred to as Revenue Bonds and Municipal Revenue Bonds, are a type of surety bonds which ensures the payment of taxes and compliance with laws and regulations.¹⁴⁶

Tax Bonds consists of the following data definitions:

Table 74: Types of Surety Bonds, Tax

Type of Surety Bond	Sub-Type of Surety Bond (1)
Tax Bonds/ Revenue Bond/ Municipal Revenue Bond	Airport Revenue Bonds
	Industrial Revenue Bonds
	Public Power Revenue Bonds
	Hospital Revenue Bonds
	Housing Revenue Bonds
	Student Loan Revenue Bonds
	Transit Revenue Bonds
	Water Revenue Bonds
	Highway Revenue Bonds
	Toll Road Bonds
	College and University Revenue Bonds

¹⁴⁶ This bond is similar to a license and permit bond (a form of commercial surety bonds) but is typically seen independently during the consultation process.

	Double-Barreled Bonds
--	-----------------------

4.6 Public Official Bonds

Public Official Bonds are a type of surety bonds which guarantees public officials perform their official duties. In the case of an ethical breach to the service, the public can claim against the bond.

Public Official Bonds consists of the following data definitions:

Table 75: Types of Surety Bonds, Public Official

Type of Surety Bond	Sub-Type of Surety Bond (1)
Public Official Bonds	Faithful Performance Bond

5. Surety Obligation: Principal's Task

Within a surety bond, there is not a specific asset that is being insured, but instead an obligation or task. This is referred to as the principal's task.

6. Principal's Task Attributes

The principal's task is individual to each surety policy, and often requires specialized attributes, or pieces of information, related to the task. The data definitions provide a minimum set of information, which can be collected for the task, but it is expected that additional information is collected, specific to the risk.

Table 76: Principal's Task Attributes

Surety Obligation	Attributes Collected
Principals Task	Location ¹⁴⁷
	Duration (Days)
	Projected Completion Date
	Total Value
	Total Insured Value
	Contact Personal
	Bond Value
	Statutory or Common Law ¹⁴⁸

¹⁴⁷ Location to be referenced within Individual Location Schedule, Table 6

¹⁴⁸ Binary Yes/No response option

G. Life

Life insurance is protection against financial loss that would result following the insured's death. The named beneficiary receives a pay-out following the death or critical illness in exchange for the premium payments made by the insured. There are vast geographical differences within the life insurance market, largely dependent on penetration and commonality. Within these data definitions, we have aimed to keep the design broad enough to be accepted internationally.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the policy can be found in Table 3.

3. Types of Insurance and Coverages with Life Insurance

Life insurance can broadly be categorized into either Personal (sometimes called Individual) or Group Life Insurance. This relates to whether the insurance covers private individuals or aggregate groups of people, usually covered through a single employer.

3.1 Personal

Personal (or Individual) Life Insurance pays out in the event of the policy holder falling critically ill or dying.

Personal Life consists of the following data definitions:

Table 77: Types of Insurance, Personal Life

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Type of Coverage	Sub-Type of Coverage (1)
Personal/ Individual	Term	Level Term		Life Coverage	
		Decreasing Term		Life Coverage	
			Family Income Benefit Policy	Life Coverage	
	Whole Life/ Permanent	Traditional		Life Coverage	
		Universal		Life Coverage	
		Variable		Life Coverage	
	Credit Life			Life Coverage	
	Critical Illness ¹⁴⁹	Standalone Critical Illness (CI)		Life Coverage	
Accelerated Critical Illness (CI)			Life Coverage		

¹⁴⁹ Also known as: Dread Disease, Trauma Insurance, Serious Illness Insurance, Living Assurance

		Additional Critical Illness (CI) ¹⁵⁰		Life Coverage	
--	--	---	--	---------------	--

3.2 Group

Group Life typically refers to aggregate groups, or pools, of people covered by a single entity, generally an employer. Individual attributes are less granular than in Personal Life as the underwriters do not require information on individual details but assess the policy as a group.

The following are the data definitions for Group Life Insurance

Table 78: Types of Insurance, Group Life

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Type of Coverage	Sub-Type of Coverage (1)	
Group	Term	Basic group term life		Life Coverage		
		Supplemental group term life		Life Coverage		
		Portable term life		Life Coverage		
	Universal Life			Life Coverage		
	Variable Group Universal Life			Life Coverage		
	Credit Life			Life Coverage		
	Critical Illness ¹⁵¹	Independent/ Standalone Critical Illness (CI)			Life Coverage	
		Accelerated Critical Illness (CI)			Life Coverage	
		Additional Critical Illness (CI) ¹⁵²			Life Coverage	

3.3 Attributes Collected About the Insured

The following list of attributes may be collected about the insured, specific to Personal Life Insurance type and are in addition to the information already captured in Table 11. There are no additional details needed for Group Life Insurance attributes outside of those already captured in Table 11.

Table 79: Personal Life Insurance Attributes

Attribute	Sub-Attribute
Socioeconomic Band	
Consumer Classification ¹⁵³	

¹⁵⁰ Additional Critical Illness is typically sold as a package with other life insurance policies

¹⁵¹ Critical Illness is less commonly included in group insurance. It has been left in to accommodate potential current and future use should it be required. Also known as: Dread Disease, Trauma Insurance, Serious Illness Insurance, Living Assurance

¹⁵² Additional Critical Illness is typically sold as a package with other life insurance policies

¹⁵³ There are various consumer classification systems existing within the market which could be recorded as a personal life insurance attribute. A specific classification system is not being recommended within this report, due to the number of regional specific systems currently available. This section could be expanded in future data definition versions.

Policy Type	Single
	Joint 1 st Death
	Joint 2 nd Death
Benefit Type	
Distribution Channel	IFA
	Tide Agent
	Direct Marketing
	Bank Assurance
	Online
	Other

H. Health

Health insurance is insurance taken out to cover the cost of medical care and expenses during the insured's life. There are vast geographical differences within the health insurance market, largely dependent on the role of the government in the coverage process. Within these data definitions, we have aimed to keep the design broad enough to be accepted internationally.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the policy can be found in Table 3.

3. Types of Insurance and Coverages with Health Insurance

Health insurance can broadly be categorized into either Personal (sometimes called Individual) or Group Life Insurance. This relates to whether the insurance covers private individuals or aggregate groups of people, usually covered through a single employer.

3.1 Individual

Personal (or Individual) Health Insurance pays out in the event of the policy holder requiring various medical treatment types such as inpatient hospitalization, outpatient care, medication etc.

Personal Health consists of the following data definitions:

Table 80: Types of Insurance, Personal Health

Type of Insurance	Sub-Type of Insurance (1)	Type of Coverage	Sub-Type of Coverage (1)
Individual	Individual (Habitant)	Inpatient	Laboratory Services
		Outpatient & GP Benefits	Rehabilitative and habilitative services
		Chronic Disease Management	
		Maternity and Newborn Care	
		Prescription Drugs	
		Mental Health	Substance Use Disorder Services
			Behavioral Health Treatment
		Dental	
		Optical	
		Ambulatory Transportation	

		Wellness and Preventative Care		
	Expatriate Medical Insurance (International Health Insurance)	Inpatient	Laboratory Services	
		Outpatient & GP Benefits		
		Assistance Services and Special Benefits	Emergency Medical Transportation	
			Repatriation of Mortal Remains	
			Compassionate Travel	
			Terminal & Palliative Care	
		Maternity and Newborn Care		
		Dental		
		Optical		
		Wellness and Preventative Care		
		Prescription Drugs		

3.2 Group

Group Health typically refers to aggregate groups, or pools, of people covered by a single entity, generally an employer. Individual attributes are less granular than in Personal Health as the underwriters do not require information on individual details but assess the policy as a group.

The following are the data definitions for Group Health insurance.

Table 81: Types of Insurance, Group Health

Type of Insurance	Type of Coverage	Sub-Type of Coverage (1)
Group	Inpatient	Laboratory Services
	Outpatient & GP Benefits	Rehabilitative and habilitative services
	Chronic Disease Management	
	Maternity and Newborn Care	
	Prescription Drugs	
	Mental Health	Substance Use Disorder Services
		Behavioral Health Treatment
	Dental	
	Optical	
	Ambulatory Transportation	
	Wellness and Preventative Care	

3.3 Attributes Collected About the Insured

The following list of attributes may be collected about the insured, specific to Health Insurance type in addition to the information captured in the personal people schedule in Table 11.

Table 82: Personal Health Insurance Attributes

Attribute	Sub-Attribute
Height	
Weight	
Income ¹⁵⁴	
Medical history	
Pre-existing/Chronic Conditions ¹⁵⁵	

¹⁵⁴ This field is required for Credit Disability coverage.

¹⁵⁵ Tables outlining pre-existing conditions exist but are not included within the schema. They are personalized and specific to insurers.

I. Agriculture

Agriculture insurance provides coverage for farming and agricultural activities and assets. A large category of the insurance cover relates to crop insurance, which protects clients from loss of crops (crop yield insurance) or loss of revenue (crop revenue insurance). Other areas of coverage include livestock, forestry and aquaculture. Bloodstock insurance is not considered a form of agriculture insurance, but instead a specialty insurance product, which should be captured within the Specialized classes of insurance data definitions.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the policy can be found in Table 3.

3. Types of Insurance and Coverages within Agriculture Insurance

Agriculture insurance can be broadly categorized into six types of insurance, each specific to the risks and assets being insured. These types of insurance, and their associated data definitions, are outlined below.

3.1 Crop Insurance

Crop insurance insures against the loss of crops due to natural disasters. This typically occurs through either indemnity-based crop insurance or index-based crop insurance. Crop revenue insurance is a combination of crop yield insurance and price insurance.¹⁵⁶

Crop insurance consists of the following data definitions:

Table 83: Types of Insurance, Crop

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Type of Coverage
Crop Insurance	Indemnity Based Crop Insurance	Multi-Peril Crop Insurance (MPCI)		Yield Loss
		Named Peril Crop Insurance		Yield Loss
	Index Based Crop Insurance (IBI)	Area Yield Index Insurance ¹⁵⁷		Index Based Loss
		Weather Index Insurance ¹⁵⁸		Index Based Loss

¹⁵⁶ "Crop Insurance Law and Legal Definition" n.d.

¹⁵⁷ "The indemnity is based on the realized (harvested) average yield of an area such as a county or district. The insured yield is established as a percentage of the average yield for the area (typically 50–90 percent of the area average yield). An indemnity is paid if the realized average yield for the area is less than the insured yield, regardless of the actual yield on a policyholder's farm."(Global Index Insurance Facility n.d.)

¹⁵⁸ "The indemnity is based on realizations of a specific weather parameter measured over a pre-specified period of time at a particular weather station or for a given satellite grid. The insurance can be structured to protect against index deviations that are expected to cause crop losses. An indemnity is paid whenever the realized value of the index exceeds or falls short of a pre-specified threshold."(Global Index Insurance Facility n.d.)

		Satellite Based Imagery ¹⁵⁹	Normalized difference vegetation index (NDVI)	Index Based Loss
			Reflectants	Index Based Loss
			Foliage Cover	Index Based Loss
	Crop Revenue Insurance (CRI)			Yield and Price Loss

3.2 Livestock Insurance

Livestock insurance insures against financial losses due to death or illness of livestock.

Livestock insurance consists of the following data definitions:

Table 84: Types of Insurance, Livestock

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Type of Coverage
Livestock Insurance	Parametric/ Index Based Insurance	Livestock Mortality Insurance	Clean Up
			Death
			Governmental Slaughter (Stamping-Out)
			Revenue Loss
		Epidemic Diseases	Business Interruption (BI)
			Clean Up
	Transport Insurance	Revenue Loss	
		Death	
	Yield Based Insurance	Livestock Mortality Insurance	Physical Damage
			Clean Up
			Death
			Governmental Slaughter (Stamping-Out)
		Epidemic Diseases	Revenue Loss
			Business Interruption (BI)
Transport Insurance		Clean Up	
		Death	

3.3 Aquaculture Insurance

Aquaculture insurance insures aquaculture operations and fish farms from losses attributed to illness and death. Although the insurance has a potential to be far reaching, it is typically restricted to fish, mollusks and crustaceans.¹⁶⁰

Aquaculture insurance consists of the following data definitions:

¹⁵⁹ Also referred to as Normalized difference vegetation index (NDVI), satellite-based imagery insurance uses indices constructed using time-series remote sensing imagery.

¹⁶⁰ "Aquaculture Insurance Information," n.d.

Table 85: Types of Insurance, Aquaculture

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Type of Coverage
Aquaculture Insurance	Stock Insurance	Fresh Water	Stock Coverage
		Salt Water	Stock Coverage

3.4 Forestry Insurance

Forestry insurance insures timber, vineyards and shrubbery against named perils.

Forestry insurance consists of the following data definitions:

Table 86: Types of Insurance, Forestry

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Type of Coverage
Forestry Insurance	Forestry Fire Index Insurance	Fire Specific Peril Insurance	Physical Damage
		Multi-Peril insurance	Physical Damage
	Vinery Insurance	Fire Specific Peril Insurance	Physical Damage
			Business Interruption (BI)
		Multi-Peril insurance	Physical Damage
			Business Interruption (BI)

3.5 Greenhouse Insurance

Greenhouse insurance insures greenhouse infrastructure, equipment and crops against named perils.¹⁶¹ This insurance is predominantly sold in Asian markets but is becoming more popular globally.

Greenhouse insurance consists of the following data definitions:

Table 87: Types of Insurance, Greenhouse

Type of Insurance	Sub-Type of Insurance (1)	Type of Coverage
Greenhouse Insurance	Infrastructure	Physical Damage
	Equipment	Physical Damage
	Crops	Physical Damage

3.6 Farm Property Insurance

Farm property insurance insures barns, homes on farm property, and farm equipment.

Farm Property insurance consists of the following data definitions:

Table 88: Types of Insurance, Farm property

Type of Insurance	Sub-Type of Insurance (1)	Type of Coverage ¹⁶²
Farm property		Coverage A – Dwelling

¹⁶¹ Iturrioz 2009; Masia 1993

¹⁶² Coverages are based upon the Allen Financial Insurance Group Farm Property Coverage Form. ("Farm Property Coverage Form" n.d.). The coverages are often referred to by their coverage letter within policies, thus we have chosen to reflect these within the data definitions.

	Farm Dwellings, Appurtenant Structure and Household Personal Property	Coverage B – Structures Appurtenant to Dwellings
		Coverage C – Household Personal Property
		Coverage D – Loss of Use
	Farm Personal Property	Coverage E – Scheduled Farm Personal Property
		Coverage F – Unscheduled Farm Personal Property
	Barns	Coverage G – Outbuildings and Other Farm structures

3.7 Asset Types Covered by Agriculture Insurance

Assets covered by an agriculture insurance policy can be broadly categorized into several categories. These are outlined below.

Table 89: Agriculture Insurance Asset Types

Asset Type	Asset Sub-Type (1)	Asset Sub-Type (2)
Crops ¹⁶³	Cereals	
	Vegetables and Melons	
	Tree Fruits and Nuts	
	Oilseed Crops and Oleaginous Fruits	
	Root/Tuber	
	Stimulant, Spice and Aromatic Crops	
	Leguminous Crops	
	Sugar Crops	
	Other Crops	
	Forage	
Livestock ¹⁶⁴	Bovine	Cows
		Calves
		Feeder
		Fed
		Dairy
	Sheep/ Goats	
	Swine/ Pig	Weaner
		Grower
		Finisher
	Equines	
	Camels and Camelids	
	Poultry	Breeders
		Chicks
Broilers		
Layers		

¹⁶³ We have referred to the Food and Agriculture Organization of the United Nations' Indicative Crop Classification for the Agricultural Census (ICC) for our categories of crops. (FAO 2017)

¹⁶⁴ We have referred to the Food and Agriculture Organization of the United Nations' Livestock Classification for the Agricultural Census (ICC) for our categories of livestock. ((FAO 2017)

	Other Animals	
	Insects and Worms	Bees
		Silkworms
		Others
Marine/ Aquaculture ¹⁶⁵	Freshwater Fishes	
	Diadromous Fishes	
	Marine Fishes	
	Crustaceans	
	Mollusks	
	Wales, Seals and Other Aquatic Mammals	
	Miscellaneous Aquatic Animals	
	Miscellaneous Aquatic Animal Product	Sponges
		Pearls and Shells
Corals		
Aquatic Plants (Seaweed)		
Forest	Timber	
	Vinery	
	Shrubbery	
Structures	Greenhouse	
	Farm	

3.8 Asset Attributes for Agriculture Insurance

Each asset insured has information collected regarding it. The asset table (Table 13) and location table (Table 6) list the minimum level of information collected for each asset. In addition to this, some assets require additional asset specific information to be collected. These assets, and their additional attributes, are listed below:

This is not an exhaustive list of all assets. It only includes assets that require additional attributes.

Table 90: Agriculture Specific Asset Attributes

Asset Type		Asset Attributes	Asset Sub-Attributes (1)
Crops		Number of Planted Acres	
		Number of Mature Trees	
		Name of Crop	
		Crop Specie	
		Crop Protection in Place	
		Crop Year	
Livestock	General	Number of Head	
		Livestock Specie	
		Market Value	
		Livestock Specie	

¹⁶⁵ We have referred to the International Standard Statistical Classification of Aquatic Animals and Plants (ISSCAAP) for the sub classification of aquatic animals and plants. The nomenclature has been developed by the Food and Agriculture Organization of the United Nations' to classify commercial species into nine divisions. Their documentation further categorizes these divisions into 50 groups, which could be referenced if further detail was required. ("The Current International Standard Statistical Classification of Aquatic Animals and Plants (ISSCAAP) in Use from 2000" n.d.)

	Additional Information for Individually Insured Livestock	Date of Birth	
		Date of Purchase	
		Sex	
		Use	
Marine/ Aquaculture		Marine Specie	
		Size	Number of Head
			Number of Tons
		Stock Fluctuation (Annual)	
		Specie's Average Size	
		Specie's Maximum Size	
		Stock Density	lbs./Acre
kg/Hectare			
Forest		Number of Planted Trees	
		Number of Planted Blocks	
		Number of Planted Acres	
		Maximum Number Harvested	
		Predominant Species	
		Average Age of Trees/Shrub (Years)	
Structures	Farm	Farm Equipment	
		Number of Outbuildings	
		Number of Other Farm Structures	

J. Political and Security Risk

Political and Security Risk insurance provides risk transfer for potential loss from political or crisis events. Financial charges and losses can arise through violent means or government action, which can interfere with organizational operations and trade. Losses can be due to physical damage and associated interruption, but may also extend to cover devaluation, contract frustration, and other financial impacts. As a coverage, Political and Security risk is often able to cover risks and perils that are typically excluded from standard commercial policies.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the account holder can be found in Table 3.

3. Types of Insurance and Coverages within Political Security and Risk

Political and security risk can be broadly categorized into political risk and security risk. This classification is based upon confiscation risk, which is covered within political risk, but not within security risk.

3.1 Security Risk

Security Risk, also known as crisis management, provides insurance against losses due to a crisis event. This policy does not provide confiscation coverage.

Security risk consists of the following data definitions:

Table 91: Types of Insurance, Security Risk

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Type of Coverage
Security Risk/ Crisis Management	Political Violence				Physical Damage
					Contents
					Business Interruption (BI)
			Liability	Premises Liability	Bodily Injury and Physical Damage Liability ¹⁶⁶
					Medical Payments
			Liability		

¹⁶⁶ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

	Liability Terrorism			Premises Liability	Bodily Injury and Physical Damage Liability ¹⁶⁷	
					Medical Payments	
				Legal Protection Insurance	Legal Costs ¹⁶⁸	
				Pollution Liability		
	Kidnap and Ransom					Accidental Death and Dismember- ment
						Ransom reimbursement
						Ransom in transit
						Emergency Evacuation Costs
						Consultancy Costs for Crisis Response Team
	Maritime Piracy				Release of Ship	
	Active Shooter					Physical Damage
						Excess Physical Damage
						Contents
						Business Interruption (BI)
	Nuclear, Biological, Chemical, Radiological (NBCR)					Physical Damage
						Contents
						Business Interruption (BI)
			Liability		Premises Liability	Bodily Injury and Physical Damage Liability ¹⁶⁹
						Medical Payments
	Contingency				Event Cancellation	

¹⁶⁷ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹⁶⁸ See further breakdown of coverages captured in the Legal Protection Insurance section 3.6

¹⁶⁹ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

3.2 Political Risk

Political risk provides insurance against financial losses due to a political event. This can include both physical damage and economic impacts. This type of insurance provides confiscation coverages. "PRI protects against losses caused by host government actions that may reduce or eliminate ownership or control. It covers outright confiscations, expropriations and nationalizations as well as losses resulting from a series of acts that over time have an expropriatory effect".¹⁷⁰

Political risk consists of the following data definitions:

Table 92: Types of Insurance, Political Risk

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Type of Coverage
Political Risk	Political Risk ¹⁷¹				Physical Damage
					Contents
					Business Interruption (BI)
			Liability	Premises Liability	Bodily Injury and Physical Damage Liability ¹⁷²
					Medical Payments
					Currency Inconvertibility (CI) and Transfer Restrictions/Exchange Transfer (ET)
					Contract Frustration
					Non-honoring of Sovereign Financial Obligations
	Nuclear, Biological, Chemical, Radiological (NBCR) ¹⁷³				Physical Damage
					Contents
					Business Interruption (BI)
			Liability	Premises Liability	Bodily Injury and Physical Damage Liability ¹⁷⁴
					Medical Payments

¹⁷⁰ "The Political Risk Insurance Industry" 2010

¹⁷¹ Political Risks Coverages are adapted from XL Catlin's War, Terrorism and Political Violence policy, and Beazley's Political Violence Policy template. Further, we value any recommendations on the differentiation between named perils and coverages within political risk insurance.

¹⁷² Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

¹⁷³ We have included this here for completeness but would value feedback on whether NBCR should be in both the Security Risk and Political Risk sections.

¹⁷⁴ Can be broken down further to be Third-Party Bodily Injury and Third-Party Physical Damage

	Structured Trade Credit ¹⁷⁵				Non-payment
					Non-delivery
					Non-honoring

Some of the coverages listed have very specific meanings that have developed over through insurance industry practice. These are outlined in Table 93.

Table 93: Political Risk Coverage Definitions¹⁷⁶

Coverage	Definition
Currency Inconvertibility (CI) and Transfer Restrictions/Exchange Transfer (ET)	Political Risk Currency Inconvertibility (CI) and Transfer Restrictions/Exchange Transfer (ET) coverage "protects against losses arising from an investor's inability to convert local currency into foreign exchange and to transfer it out of the host country. It also covers excessive delays in acquiring foreign exchange. Typically, this coverage applies to the interruption of interest payments or repatriation of capital or dividends resulting from currency restrictions. It does not cover devaluation risk."
Contract Frustration	Political Risk Insurance contract frustration coverage "protects against losses arising from a host government's breach of repudiation of a contractual agreement with an investor. Claims are usually payable only after an investor has invoked a dispute resolution mechanism (such as arbitration), has obtained an award for damages and the host government has failed to honor the award."
Non-honoring of Sovereign Financial Obligations	Political Risk Insurance Non-honoring of sovereign financial obligations coverage "protects against losses resulting from a government's failure to make a payment when due under an unconditional financial payment obligation or guarantee given in favor of a project that otherwise meets an insurer's requirements. It does not require the investor to obtain an arbitral award. This coverage is usually applicable in situations when a sovereign's financial payment obligation is unconditional and not subject to defenses."

3.3 Asset Types Covered by Political Risk and Security

Political and security risk assets are typically a person, asset, or event, but can extend further to include any activity at risk of loss due to a political or security threat.

These assets are broadly categorized in Table 94.

Table 94: Political Risk and Security Asset Types

Asset Types
People

¹⁷⁵ Please see the Trade Credit Section E for the further deconstruction of Structured Trade Credit coverages.

¹⁷⁶ Quoted text in this table is from "The Political Risk Insurance Industry" 2010

Property
Contents
Asset
Event
Trade Agreement
Contracts

3.4 Asset Attributes for Political Risk and Security

Each asset insured has information collected regarding it. The asset table (Table 13) and location table (Table 6) list the minimum level of information collected for each asset. In addition to this, some assets require additional asset specific information to be collected. These are outlined in Table 95, below.

Table 95: Political Risk and Security Asset Attributes

Asset Types	Asset Attributes	Asset Sub-Attribute
People	Attributes are listed in the Professional and Personal People Schedules (Table 9 and Table 11)	
Property	No additional attributes required outside of what is captured in Location schedules in Table 6 and Table 7 ¹⁷⁷	
Contents	No additional attributes required outside of what is captured in Content scheduled in Table 8	
Asset	No additional attributes required outside of what is captured in General Asset scheduled in Table 13	
Event	Attributes are listed in the Events Schedule (Table 16)	
Trade Agreement	Attributes are listed in the Trade Agreement Schedule (Table 17)	
Contract	Attributes are listed in the Contracts Schedule (Table 18)	

3.5 Inclusions and Exclusions by Political Risk and Security

Security Risk insurance, and specifically Kidnap and Ransom policies, has a defined list of perils which are reflected in the inclusions and exclusions. These perils are listed below, but are reflected within the inclusions and exclusions in Table 3.

Named perils in Security Risk Policies include:

Table 96: Named Perils, Security Risk¹⁷⁸

Named Peril: Security Risk
Act of Terrorism
Sabotage

¹⁷⁷ Additional physical information could be captured about commercial buildings and their vulnerability or resilience to war or terrorist activities. We are currently not proposing additional attributes but recognize this could be expanded in future data definition versions.

¹⁷⁸ Beazley 2018

Riots, Strikes and/or Civil Commotion
Malicious Damage
Insurrection, Revolution or Rebellion
Mutiny and/or Coup D'état
War and/or Civil War
Counter-Insurgency

It is common for Political Risk policies to have CEND named perils, CEND being the first four rows in the following table.

Table 97: Named Perils, Political Risk

Named Peril: Political Risk
Confiscation
Expropriation
Nationalization
Deprivation
Forced Abandonment / Divestiture
Import/Export Embargoes

Named perils in Kidnap and Ransom Policies include:

Table 98: Named Perils, Kidnap and Ransom¹⁷⁹

Named Peril: Kidnap and Ransom
Detention
Disappearance
Express Kidnap
Extortion ¹⁸⁰
Hijack
Hostage Crisis
Kidnap
Political Evacuation & Repatriation
Tiger Kidnap

¹⁷⁹ This list is adapted from the Hiscox Special Risks and AIG's K&R policies (Hiscox Special Risks n.d.; AIG n.d., n.d.)

¹⁸⁰ This covers threats by persons who then demand a ransom as a condition of not carrying out the above threats. This is separate from Cyber Extortion.

K. Annuities and Pensions

Annuities and pensions facilitate the payment of savings over a pre-agreed time. Although similar in practice, annuities and pensions can be differentiated by the process they are established; annuities are purchased in full, while pensions are contributed throughout one's life. Considering ownership, annuities are a private commercial agreement, while pensions can be arranged through either a government or a private employer. The insurers are often responsible for managing the pension on behalf of employers or individuals and can effectively absorb the longevity risk.

Annuities and pensions operate differently than other insurance products, with different actors, partnerships, and structures. As a result, annuities and pensions have a variation of the structure described in the introduction.

1. Information about the Insured (Pensioner or Annuitant Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the account holder can be found in Table 3.

3. Information about the Individual

Within annuities and pensions, there can either be a collective or individual coverage. In the case of individual coverage, additional information is required. In addition to the attributes already captured in the general personal or professional people schedules (Table 9, Table 10, and Table 11), we recommend that the following is captured for pension and annuity policies.

Table 99: Individual Insured Details, Pensioner and Annuitant

Contingent Name ¹⁸¹	
Single Contribution Value	
Regular Contribution Value	Frequency
Retirement Age	

4. Sub-Types of Annuities

Annuities can broadly be classified as either deferred or immediate, depending on the pay-out methods. These are described below.

¹⁸¹ This is the person who receives benefits in cases where the primary beneficiary cannot. (Phipps 2017)

4.1 Deferred Annuities

Deferred annuities delay payments until after the investor chooses to receive them. They typically occur in two phases: Savings and Income. The saving phase is when money is being invested into the account. The income phase is when the plan is converted into a payment.¹⁸² Deferred annuities can also transfer into immediate annuities when the annuitant wants to have payments begin.¹⁸³

Deferred annuities consist of the following data definitions:

Table 100: Sub-Type of Annuity, Deferred

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Type of Coverage
Annuities	Deferred	Fixed	Indexed	
		Variable Annuities		

Fixed annuities occur when the pension is paid out in a fixed sum. Variable annuities occur when the pensions' pay-out is tied to market performance.¹⁸⁴ Indexed pensions are a form of fixed annuities, and provide the annuitant "investment return that is a function of the change in the level of an index... while guaranteeing no less than a stated fixed return on the investment."¹⁸⁵

4.2 Immediate Annuities

An immediate annuity is an annuity contract which is purchased in lump sum, and begins payments straight away.¹⁸⁶ The annuity continues payment for either a fixed period, or for as long as the annuitant is alive.¹⁸⁷

Immediate annuities consist of the following data definitions:

Table 101: Sub-Type of Annuity, Immediate

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Type of Coverage
Annuities	Immediate	Fixed	Indexed	
		Variable Annuities		

Fixed annuities occur when the pension is paid out in a fixed sum. Variable annuities occur when the pensions' pay-out is tied to market performance.¹⁸⁸ Indexed pensions are a form of fixed annuities, and provide the annuitant "investment return that is a function of the change in the level of an index... while guaranteeing no less than a stated fixed return on the investment."¹⁸⁹

5. Types of Pensions

Pensions can be broadly categorized into two categories: state pensions and private pensions. These are described below.

¹⁸² "Deferred Annuity" 2003

¹⁸³ CNN n.d.

¹⁸⁴ CNN n.d.

¹⁸⁵ "What Are The Differences Between Fixed And Variable Annuities?" 2016

¹⁸⁶ "Immediate Payment Annuity" 2003

¹⁸⁷ CNN n.d.

¹⁸⁸ CNN n.d.

¹⁸⁹ "What Are The Differences Between Fixed And Variable Annuities?" 2016

5.1 State Pensions

A state pension (also referred to as a public pension) is a regular payment made by the government to support people who are not working, and over the official retirement age. This can also sometimes include widows and persons with disabilities.¹⁹⁰ The data definitions do not extend past this type of insurance, as each government has an independent system and organizational structure.

Table 102: Sub-Type of Pension, State

Type of Insurance	Sub-Type of Insurance (1)	Type of Coverage
Pensions	State Pension	

5.2 Private Pensions

A private pension is a regular payment for retirement which is organized independent from the government. This can be a personally planned pension, or one organized by an employer.

The private pension data definitions are outlined below.

Table 103: Sub-Type of Pension, Private

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Type of Coverage
Pensions	Private Pension	Defined Contribution/ Money Purchase Pension Scheme	Employer Arranged	Executive pension plan	
				Group personal pension	
			Personally Arranged	Master trust pension	
				Self-Invested Personal Pension (SIPP)	
				Small Self-Administered Schemes (SSAS)	
				Stakeholder pension	
		Defined Benefit/ Final Salary/ Career Average	Workplace Arranged		

Within private pensions, the insured can have either a defined contribution or defined benefit plan. A defined benefit plan requires the employer to pay into the pension plan and is typically based on your wage and how long you have worked for the employer. A defined contribution plan requires the employee to add their own money to the pension plan, and is determined based on how much is paid in.¹⁹¹

¹⁹⁰ "State Pension," n.d.

¹⁹¹ *Time* n.d.

L. Personal Lines

Personal lines are a broad category which includes multiple types of insurance. Exposure data has been defined for:

- i. Residential Property

In this schema, some of the most significant additional areas of personal lines exposure are documented, which include:

- ii. Personal Auto
- iii. Personal Travel Insurance
- iv. Personal Accident

These are insurance products which are designed for personal use and protect individuals from losses which they could not afford otherwise.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the policy can be found in Table 3.

3. Types of Insurance

Four primary types of insurance have been considered in this section of the data definitions document. These are outlined in individual sections below.

3.1 Residential Property

Residential property provides financial reimbursement to residents in the case of damage or theft to a structure or its contents. This insurance is available to both owners and renters.¹⁹²

As exposure data is well defined for residential property, this is not included in the scope of this data definition documentation. However, we recognize that this is where it sits within the exposure data categorization system.

3.2 Personal Auto

Personal auto insurance provides coverage for potential automotive damage, injuries, and liabilities associated with their operation. It is often a legally required coverage when operating an automotive.

¹⁹² "Property Insurance" 2011

a. Types of Coverage, Personal Auto

Personal auto insurance consists of six different coverages that offer various forms of risk transfer. They are used consistently within the auto insurance industry and are referred to by their letter. This is reflected in the terminology used within the data definition. Personal auto coverages are listed in Table 104.

Table 104: Types of coverages within Personal Auto

Type of Insurance	Sub-Type of Insurance	Type of Coverage
Personal Auto	Personal Auto Policy (PAP)	Part A – Liability Coverage
		Part B – Medical Payments Coverage
		Part C – Uninsured Motorists and Underinsured Motorists Liability Insurance (UM/UIM)
		Part D – Damage to Your Auto
		Part E – Duties After an Accident or Loss
		Part F – General Provisions

b. Asset Types Covered by Auto Insurance

Assets insured by auto insurance can be classified into seven categories.¹⁹³ These are summarized in Table 105.

Table 105: Types of asset within Personal Auto

Asset Type	Asset Sub-Type (1)	Asset Sub Type (2)	
Bus	Van Sized Bus		
	Small Bus		
	Large Bus		
	School Bus		
	Other Bus		
Motorcycle	Moped		
Other Motor Vehicle	Low Speed Vehicle	All-Terrain Vehicle	
	Tanks		
	Armored Vehicle		
Passenger Cars			
Truck	Light Truck		
	Medium Truck		
	Heavy Truck		
	Single Unit Truck		
	Truck Tractor		
	Truck Combination		Single Unit Truck and Full Trailer
			Single Unit Truck and Semi-Trailer
			Truck Tractor and Semi-Trailer
		Truck Tractor, Semi-Trailer and Full Trailer	
Utility Vehicle	Mini		
	Small		

¹⁹³ This categorization has been adopted from the American National Standard's "Manual on Classification of Motor Vehicle Traffic Accidents", 2007 and HM Revenue & Customs' "Classifying Vehicles, Parts and Accessories", 2017.

	Midsize	
	Full-Size	
	Large	
Van	Cargo Van	
	Passenger Van	

c. Auto Asset Attributes

Each asset insured has information collected regarding it. The asset table (Table 13) and location table (Table 6)¹⁹⁴ list the minimum level of information collected for each asset. In addition to this, automotive assets require the following additional pieces of information.

Table 106: Personal Auto Asset Attributes

Asset	Asset Attribute
Automotive	Gross Weight of Vehicle
	Vehicle Use
	Name of Any Declared Person Who Can Use the Car

3.3 Personal Travel Insurance

Personal travel insurance provides coverage for unforeseen events which occur while traveling. A core component of travel insurance relates to travel health insurance, which provides health coverage while away from one's permanent jurisdiction.

d. Sub-Types of Insurance and Coverages within Personal Travel Insurance

Personal travel insurance consists of five different sub-types of insurance. Within each sub-type, there are several potential coverages. These are summarized in Table 107.

Table 107: Types of Personal Travel Insurance and Coverage

Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Type of Coverage	Sub-Type of Coverage (1)
Comprehensive (Package)				Medical Coverage	Dental Coverage
				Trip Cancellation	
				Emergency Evacuation	
				Repatriation	
	Personal Property			Physical Damage	
		Personal Liability	Premises Liability	Bodily Injury and Physical Damage Liability	Third-Party Bodily Injury
				Physical	Third-Party Physical Damage
				Medical Payments	
	Travel Medical				

¹⁹⁴ When considering location for automotive assets, fixed assets can be easily identified by the address. For mobile assets, such as vehicles, location can be attributed to jurisdiction, reported within the location table, or account holder address, reported within the account holder table.

				Medical Coverage	Dental Coverage
				Emergency Evacuation	
Evacuation (Medevac)				Emergency Evacuation	
				Repatriation	
				Emergency Evacuation	
Travel Accident				Accidental Death and Dismemberment	
				Beneficiary Payment	
				Medical Coverage	Dental Coverage
				Trip Cancellation	
				Emergency Evacuation	
Annual Travel Insurance				Repatriation	
	Personal Property			Physical Damage	
		Personal Liability	Premises Liability	Bodily Injury and Physical Damage Liability Physical	Third-Party Bodily Injury Third-Party Physical Damage
				Medical Payments	
				Medical Coverage	Dental Coverage
				Trip Cancellation	
				Emergency Evacuation	
				Repatriation	
Specialty Insurance	Personal Property			Physical Damage	
		Personal Liability	Premises Liability	Bodily Injury and Physical Damage Liability Physical	Third-Party Bodily Injury Third-Party Physical Damage
				Medical Payments	

e. Asset Types Covered by Personal Travel Insurance

When considering “assets” within personal travel insurance, we are describing the insured (a person). It is not assumed that the insured is the account holder.

f. Personal Travel Insurance Asset Attributes

Attributes collected about the insured persons are summarized in Table 108 and these are in addition to the Personal People Table 11.

Table 108: Personal Travel Insurance Attributes

Attribute	Sub-Attribute (1)
Travel Jurisdiction ¹⁹⁵	
Pre-existing/Chronic Conditions	

g. Additional Policy Details

In addition to the policy details collected in Table 3, the following information is required pertaining to the policy, summarized in Table 109.

Table 109: Additional Policy Details, Personal Travel Insurance

Maximum Policy Duration	Days
	Single Trip/Multi Trip ¹⁹⁶
Jurisdiction	Worldwide/ Specified ¹⁹⁷
Number of Insured Persons	

3.4 Personal Accident Insurance

Personal accident insurance is a sum of money that is paid in the case of a sudden accident.¹⁹⁸ The money is given to the insured and can be used to help pay for medical expenses or funeral costs. This insurance can be taken out as a stand-alone policy, or as a benefit included within another product. Personal accident insurance is purchased individually, however group insurance policies are also available. The latter is discussed further in Group Accident Insurance, found in section 3.4.

h. Types of Personal Accident Insurance Coverages

The following coverages are available within personal accident insurance.¹⁹⁹

Table 110: Personal Accident Coverage Types

Type of Coverage	Sub-Type of Coverage (1)
Accidental Death	
Accidental Permanent Disability	Bodily Injury
	Sensory Image
	Dental Injuries
Accidental Temporary Total Disability	Bodily Injury
	Sensory Image
	Dental Injuries
Hospital Cash (Medical Expenses)	
Household Utility Protection	

¹⁹⁵ Geography and jurisdiction plays a fundamental role for personal travel insurance, yet often suffers from a distinct lack of detail. The jurisdiction identified within the asset attributes is the location used during risk modelling. For multiple trips or worldwide policies, this is potentially not an option, and geography may not be available.

¹⁹⁶ Binary Option

¹⁹⁷ Binary option

¹⁹⁸ In some jurisdictions, this is a tax-free sum of money.

¹⁹⁹ Chubb n.d.; Aviva n.d.; XL Catlin n.d.

Income Support	
Ancillary Travel Accident Coverage	
Funeral Expenses	

i. Asset Types Covered by Personal Accident Insurance

The individual receiving the coverage is the asset within the policy. Further, for personal accident insurance it is extended coverage is available for partners and dependents. In some cases, insurers offer personal accident insurance as ‘family personal accident plans’.²⁰⁰

j. Personal Accident Insurance Asset Attributes

Information is captured regarding the insured individual as detailed in Table 11. We recognize that the amount of information available will vary depending on policy type, and recommend information is included as it is provided to the insurer. During our research we also found that personal accident policies are sometimes further divided by the type of person they are covering, i.e. an individual or family. We recommend this is captured as an additional ‘type of insured’ attribute of the personal persons table.

²⁰⁰ Aviva n.d.

M. Commercial Lines

Commercial lines are a broad category that include multiple types of insurance. Exposure data has been well defined for:

- i. Commercial Property

In this schema, some of the most significant additional areas of commercial lines exposure are documented, which include:

- ii. Commercial Auto
- iii. Business Travel insurance
- iv. Group Accident
- v. Fidelity Bonds

These are insurance lines that are designed for commercial use and protect organizations from losses which would be difficult to offset otherwise.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the policy can be found in Table 3.

3. Types of Insurance

Five primary types of insurance have been considered in this section of the data definitions document. These are outlined in individual sections below.

3.1 Commercial Property

Commercial property provides financial reimbursement to commercial organizations in the case of damage or theft to a structure or its contents. Additionally, the insurance can provide business interruption and contingent business interruption occurring due to the theft or damage.

Within this report, we made a conscious effort to not expand existing property data definitions. However, we recognize that this is where it would sit within the data definition.

3.2 Commercial Auto

Commercial auto insurance provides coverage for potential automotive damage, injuries, and liabilities associated with their operation. It is often a legally required coverage when operating an automotive.

a. Types of Coverage, Commercial Auto

Commercial auto insurance consists of 3 major types sub-types of insurance, and multiple coverages. The coverage structure is summarized in Table 111.

Table 111: Types of insurance and coverages within Commercial Auto

Type of Insurance	Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Type of Coverage	Sub-Type of Coverage (1)
Commercial Auto	Business Auto Coverage		Liability		Bodily Injury and Physical Damage Liability	Third-Party Bodily Injury
						Third-Party Physical Damage
		Comprehensive			Physical Damage	
		Collision				
					Auto Medical Payments	
					Uninsured and Underinsured Motorist Coverage	
	Garage Coverage		Liability	Garage Operations	Bodily Injury and Physical Damage Liability	Third-Party Bodily Injury
					Non-Auto Loss Exposure	Bodily Injury and Physical Damage Liability
				Third-Party Physical Damage		
					Garage Keepers Coverage	
					Physical Damage	
	Motor Carrier Coverage				Motor Carrier Coverage	

b. Asset Types Covered by Auto Insurance

Assets insured by auto insurance can be classified into eight categories.²⁰¹ These are summarized in Table 112.

Table 112: Types of asset within Commercial Auto

Asset Type	Asset Sub-Type	Asset Sub-Type (2)
Bus	Van Sized Bus	
	Small Bus	
	Large Bus	
	School Bus	
	Other Bus	
Garage		

²⁰¹ This categorization has been adopted from the American National Standard's "Manual on Classification of Motor Vehicle Traffic Accidents", 2007 and HM Revenue & Customs' "Classifying Vehicles, Parts and Accessories", 2017.

Motorcycle	Moped		
Other Motor Vehicle	Low Speed Vehicle	All-Terrain Vehicle	
	Tanks		
	Armored Vehicle		
Passenger Cars			
Truck	Light Truck		
	Medium Truck		
	Heavy Truck		
	Single Unit Truck		
	Truck Tractor		
	Truck Combination		Single Unit Truck and Full Trailer
			Single Unit Truck and Semi-Trailer
			Truck Tractor and Semi-Trailer
		Truck Tractor, Semi-Trailer and Full Trailer	
Utility Vehicle	Mini		
	Small		
	Midsized		
	Full-Size		
	Large		
Van	Cargo Van		
	Passenger Van		

c. Auto Asset Attributes

Each asset insured has information collected regarding it. The asset table (Table 13) and location table (Table 6)²⁰² list the minimum level of information collected for each asset. In addition to this, automotive assets require the following additional pieces of information:

Table 113: Commercial Auto Asset Attributes

Sub-Type of Insurance	Asset	Asset Attribute
Business Auto Coverage	Automotive	Type of Insured Motor Vehicle
		Gross Weight of Vehicle
		Vehicle Use
		Covered Auto Designation Symbols ²⁰³
Garage Coverage	Garage	Type of Operations
		Type of Assets Held Onsite ²⁰⁴
		Average Number of Assets Onsite
Motor Carrier Coverage	Truck	Type of Operation
		Type of Asset Used
		Average Number of Assets Inventory

²⁰² When considering location for automotive assets, fixed assets can be easily identified by the address. For mobile assets, such as vehicles, location can be attributed to jurisdiction, reported within the location table, or account holder address, reported within the account holder table.

²⁰³ Covered Auto Designation Symbols identify the type of coverage applied to commercial autos, ranging from specific coverage to broad coverage. These symbols differ for liability and physical damage coverage. They are listed in Table 114 and Table 115 respectively.

²⁰⁴ See Table 112 for categorization of potential automotive assets.

		Average Number of Trips Per Year
		Average Length of Trip
		Jurisdiction of Trips

Table 114: Liability Covered Auto Designation Symbols

Liability Coverage Auto Symbols
Symbol 1 – Any Auto
Symbol 2 – Owned Autos Only
Symbol 3 – Owned Private Passenger Autos Only
Symbol 4 – Owned Autos Other Than Private Passenger Autos Only
Symbol 5 – Owned Autos Subject to No-Fault
Symbol 6 – Owned Autos Subject to a Compulsory Uninsured Motorist Law
Symbol 7 – Specifically Described Autos
Symbol 8 – Hired Autos Only
Symbol 9 – Non-owned Autos Only
Symbol 19 – Mobil Equipment Subject to Compulsory or Financial Responsibility or Other Motor Vehicle Insurance Law Only

Table 115: Physical Damage Covered Auto Designation Symbols

Physical Damage Coverage Auto Symbols
Symbol 1 – Owned Autos Only
Symbol 2 – Owned Private Passenger Autos Only
Symbol 3 – Owned Autos Other Than Private Passenger Autos Only
Symbol 4 – Specifically Described Autos
Symbol 5 – Hired Autos Only

3.3 Business Travel Insurance

Business travel insurance provides coverage for unforeseen events that occur while traveling for business. A core component of travel insurance relates to travel health insurance, which provides health coverage while away from one's permanent jurisdiction.

d. Sub-Types of Insurance and Coverages within Business Travel Insurance

Business travel insurance consists of five different sub-types of insurance. Within each sub-type, there are several potential coverages. These are summarized in Table 116.

Table 116: Types of Business Travel Insurance and Coverage

Sub-Type of Insurance (1)	Sub-Type of Insurance (2)	Sub-Type of Insurance (3)	Sub-Type of Insurance (4)	Type of Coverage	Sub-Type of Coverage (1)
Comprehensive (Package)				Medical Coverage	
					Dental Coverage
				Trip Cancellation	
				Emergency Evacuation	

				Repatriation		
	Personal Property			Physical Damage		
		Personal Liability	Premises Liability	Bodily Injury and Physical Damage	Third-Party Bodily Injury	
				Liability Physical	Third-Party Physical Damage	
				Medical Payments		
Travel Medical				Medical Coverage	Dental Coverage	
				Emergency Evacuation		
Evacuation (Medevac)				Emergency Evacuation		
Travel Accident				Repatriation		
				Emergency Evacuation		
				Accidental Death and Dismemberment		
				Beneficiary Payment		
Annual Travel Insurance				Medical Coverage	Dental Coverage	
				Trip Cancellation		
				Emergency Evacuation		
				Repatriation		
		Personal Property		Physical Damage		
			Personal Liability	Premises Liability	Bodily Injury and Physical Damage	Third-Party Bodily Injury
					Liability Physical	Third-Party Physical Damage
				Medical Payments		
Specialty Insurance				Medical Coverage	Dental Coverage	
				Trip Cancellation		
				Emergency Evacuation		
				Repatriation		
		Personal Property		Physical Damage		
			Personal Liability	Premises Liability	Bodily Injury and Physical	Third-Party Bodily Injury

				Damage Liability Physical	Third-Party Physical Damage
				Medical Payments	

e. Asset Types Covered by Business Travel Insurance

When considering “assets” within business travel insurance, we are describing the insured or insureds (a person or group of people).

f. Business Travel Insurance Asset Attributes

Attributes will differ depending if it is a group policy or singular policy. At a minimum, attributes summarized in Table 117. If additional employee information is available, the professional people schedule listed in Table 10 should be used.

Table 117: Business Travel Insurance Attributes

Attribute
Travel Jurisdiction ²⁰⁵
Pre-existing/Chronic Conditions

g. Additional Policy Details

In addition to the policy details collected in Table 3, the following information is required pertaining to the policy, summarized in Table 118.

Table 118: Additional Policy Details, Personal Travel Insurance

Maximum Policy Duration	Days
	Single Trip/Multi Trip ²⁰⁶
Jurisdiction	Worldwide/ Specified ²⁰⁷
Number of Insured Persons	

3.4 Group Accident Insurance

Group Accident insurance is a sum of money which is paid in the case of a sudden accident or death of an employee to a corporation, whether the accident occurred at while at work or at home. The money is given to the insured and can be used to help pay for funeral costs, cover absences and rehire staff. Group Accident insurance can either be taken out as a stand-alone policy, or as a benefit included within another product.

Accident insurance can be purchased as a group insurance policy or business insurance policy. The funds paid following a loss, for example, can be used to pass on to the injured party or can be used to pay for a temporary replacement during the absence of the individual.

²⁰⁵ Geography and jurisdiction plays a fundamental role for personal travel insurance, yet often suffers from a distinct lack of detail. The jurisdiction identified within the asset attributes is the location used during risk modelling. For multiple trips or worldwide policies, this is potentially not an option, and geography may not be available.

²⁰⁶ Binary Option

²⁰⁷ Binary option

Typically group insurance policies are purchased by employers, whilst business accident insurance is purchased by individuals for their own use. We discuss personal accident insurance within the personal lines of insurance section L3.4. It can also be called Occupational Personal Accident insurance.²⁰⁸

h. Types of Group Accident Insurance

There are no further sub-types of business accident insurance. The following coverages are available within business accident insurance.²⁰⁹

Table 119: Business Accident Coverage Types

Type of Coverage
Accidental Death
Accidental Permanent Disability
Accidental Temporary Total Disability
Recruitment Expenses
Retraining Expenses
Funeral Expenses/Repatriation Costs
Medical Expenses and Expatriate Medical Expenses/ International Medical Plans

i. Asset Types Covered by Group Accident Insurance

The employees within the organization are the assets within the policy.

j. Group Accident Insurance Asset Attributes

The information captured for each employee is detailed in Table 9. The amount of information available will vary depending on policy type.

During our research we also found that group accident policies are sometimes further divided by the type of organization they cover, i.e. hunting and fishing groups, aviation employees, members of a cultural organization, students/pupils, nursery children, students study abroad and so on. We recommend this is captured as an additional 'type of insured' and 'occupation' attributes of the professional persons table.

3.5 Fidelity Bonds

Fidelity bonds, also known as employee dishonesty coverages, provide organizations protection against dishonest acts taken by employees. These are acts which would typically not be covered under a commercial general liability policy, and can include destruction of property, fraud, or theft. Fidelity bonds can be either first party or third-party bonds. First Party fidelity bonds protect businesses from wrongful acts taken by their employees. Third-party fidelity bonds protect businesses from wrongful acts taken by people who are working for them in a contractual agreement, such as consultants or contractors. Third-party fidelity bonds are a form of surety, due to their coverage of shareholders (rather than the institution). The data definition for third-party fidelity bonds are found in Surety Chapter E.

k. Types of Fidelity Bonds

Fidelity bonds can be broadly categorized into two sub-types of insurance, dependent of the institution receiving coverage. A financial institution bond is a type of insurance specifically used to insure financial organizations from employee wrongful acts, while a commercial crime bond insures non-financial institutions. Although forms can differ across organizations, there is typically standardized coverages for both financial and commercial bonds. This is in part due to the age of the market and established participation.²¹⁰

²⁰⁸ Chubb n.d

²⁰⁹ Chubb n.d.; Hiscox UK n.d.

²¹⁰ Magrann-Wells 2015;

In the case of financial binds, these are referred to as clauses, while in commercial bonds, these are referred to as forms. This structure is outlined in Table 120: Type of Insurance and Coverage, Fidelity Bonds. Within Fidelity bonds, there are well defined policy forms that are used in conjunction to the insurance sub-type. These are summarized in Table 121: Types of Policy Forms, Fidelity Bonds.

Table 120: Type of Insurance and Coverage, Fidelity Bonds

Type of Insurance	Sub-Type of Insurance	Type of Coverage
First Party Fidelity Bonds/ Employee Dishonesty Coverage	Financial Institutions Bonds ²¹¹	Clause A - Fidelity
		Clause B - On Premises
		Clause C - In Transit
		Clause D - Forgery or Alteration
		Clause E - Securities
		Clause F - Counterfeit Currency
	Commercial Crime Bonds ²¹²	Form A - Employee Dishonesty Concerning Money or Properties.
		Form B - Forgery or Falsification of Monetary Instruments
		Form C - Theft
		Form D - Robbery or Safe Burglary
		Form E - Burglary of a Business Location
		Form F - Fraud by Computer
		Form G - Extortion
		Form H - Theft of Items Other Than Money and Securities at The Business Location
		Form I - Loss of Items in a Safe Deposit Box Due to Theft.
		Form J - Securities Deposited with A Guardian.
		Form K - Liability for A Guest's Property Left in A Safe Deposit Box.
		Form L - Other Liability to The Guest's Property
		Form M - Liability for A Safe Depository
		Form N - Safe Depository Loss
Form O - Dishonesty of Public Employees. (Includes Dishonesty and Misrepresentation)		
Form P - Dishonesty of Public Employees (Further Coverage).		
Form Q - Robbery of Money and Security.		
Form R - Acts Conducted by Using False Monetary Instruments.		

Table 121: Types of Policy Forms, Fidelity Bonds

Type of Insurance	Sub-Type of Insurance	Policy Forms
Fidelity Bonds		Financial Institution Bonds, Standard Form No. 14: Brokers/Dealers

²¹¹ Coverages adapted from Magrann-Wells 2015

²¹² Adapted from "Commercial Crime Coverage Form" n.d

	Financial Institution Bonds ²¹³	Financial Institution Bonds, Standard Form No. 15: Mortgage Bankers and Finance Companies
		Credit Union Blanket Bond, Standard Form No. 23: Credit Unions
		Financial Institution Bonds, Standard Form No. 24: Commercial Banks, Savings Banks and Savings and Loan Associations (Also referred to as a "Bankers Blanket Bond")
		Financial Institution Bonds, Standard Form No. 25: Insurance Companies
		Excess Bank Employee Dishonesty Bond, Standard Form No. 28, Commercial Banks
	Commercial Crime Bonds	Commercial Crime Policy
		Commercial Crime Policy for Public Entities

I. Asset Types Covered by Fidelity Insurance

As a default, the account holder is assumed to be the insured asset.

m. Fidelity Insurance Asset Attributes.

Information is collected about the account holder as a first step in the data definition. This is discussed in section M1, and stored in Table 2: **Information About the Insured (Account Holder)**. In addition, each asset insured has information collected regarding its location, summarized in Table 6. Specific to fidelity insurance, the following additional attributes are required to be collected about the insured organization.

Table 122: Fidelity Asset Attributes

Organizational Attributes	Sub-Attributes
Number of Insured Locations	
Type of Organization	Public
	Private
	Non-Profit
	Governmental
Number of Insured Employees	Domestic Employees
	Foreign Employees
Annual Audits by Independent Certified Public Accountant (CPA)	Yes/ No

²¹³ Adapted from "Financial Institution Bonds - Description of Coverage" n.d.

N. Specialized Underwriting Classes

The specialty market is a broad term that varies significantly across different insurance organizations. The term typically refers to insurance lines that require a “specialist” to underwrite and continue to adapt to the increasingly diverse market. However, the term specialty is used widely, and is variably used to describe many different classes of insurance, (such as marine and energy, aviation, and agriculture). We represent each of these as its own class within this data definitions document. However, there are many other categories of insurance, beyond these, that are written by specialized underwriters, such as satellite, contingency/event cancellation, bloodstock, and others. We encompass these in the class of exposure we have categorized as ‘Specialized Underwriting Classes’.

This class of exposure can be applied as a default option for lines of exposure that do not fit elsewhere within the data definitions. Lines stipulated in this section are user defined and include policies that are specific to that organization. To support this, the default dictionaries are listed, unpopulated.

User defined data definitions are not applicable to industry wide data definitions or discussions but can be added when considering internal exposure.

1. Information about the Insured (Account Holder)

This data definitions document suggests that information about the insured, or the account holder, is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the account holder independent from the class of business allows multiple policies and classes of businesses to be attributed to one account holder. Information collected about the account holder can be found in Table 2.

2. Information about the Policy and Financial Structure

This data definitions document suggests that information about the policy is not specific to the class of business. Instead, these data definitions store this information within the general tables, which are consistent across each class of business. Keeping the details of the policy stored independently allows multiple classes of businesses to be attributed to one policy. Information collected about the account holder can be found in Table 3.

3. Types of Insurance and Coverages within Specialized Underwriting Classes

Within this table, the types of insurance are listed. Any sub-types of the insurance are nested below the broader insurance type. The type of insurance coverage is listed to the far right of the table. There can be more than one coverage for a single type of insurance.

Table 123: Type of Insurance, Specialized Underwriting Classes

Type of Insurance	Sub-Type of Insurance	Type of Coverage

4. Types of Insurance and Coverages within Specialized Underwriting Classes

Within this table, the assets insured by the specialized types of insurance are listed. Any sub-types of the asset are nested below the broader asset type.

Table 124: Type of Assets, Specialized Underwriting Classes

Asset	Asset Sub-Type

5. Asset Attributes for Specialized Underwriting Classes

Relevant attributes for each type of asset are listed in the table below. There are existing tables for people, assets, projects, events, locations and products. These should be used as a basis, and only additional required information should be listed below.

Table 125: Type of Asset Attributes, Specialized Underwriting Classes

Asset	Asset Attributes

Part IV: Bibliography

1. Project Documents

Consultation documents for each round of the data definitions development. These can be accessed at the Cambridge Centre for Risk Studies publications page for the Project on Global Exposure, Accumulation and Clash: <https://www.jbs.cam.ac.uk/faculty-research/centres/risk/publications/multi-threat/>

Project Final Reports:

Cambridge Centre for Risk Studies, 2018; **Multi-Line Insurance Exposure Management: Data Definitions Document v1.0**; in collaboration with Risk Management Solutions, Inc.; Sept 2018. [Link to publication posting]

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Phase 1

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Phase 2

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Phase 3

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