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Overview

This document outlines the methodology used to develop and maintain Advisen’s Insurance Program Database. It describes the principles and standards that support our patented Insurance Program Benchmarking utility with clear explanations of how the data is captured, collected, and curated.

Advisen Benchmarking utilizes a proprietary relational database of premium, limit, and retention data which is mapped to individual insureds and linked via a structured format to corresponding demographic and exposure data.

At all times, individual insurance program details remain confidential and the identity of the underlying insured is anonymized. Accordingly, all outputs reveal only the characteristics of indicative insurance programs in force for “like” companies or peers which match the user-selected data filters.

As of June 2015, the database includes over 3.3 million insurance programs. For our purposes, an insurance program is one or more policies that equate to a tower of coverage in a given line of business (LOB) for a specific year or term.

The majority of the insurance programs represent coverage written in the United States though other countries and regions around the world are included.

Program data in Advisen Benchmarking is linked to company information sourced from industry leading providers such as S&P/Capital IQ, Dun & Bradstreet, and Thomson Reuters, and supplemented by Advisen’s proprietary research. Company information includes demographics, such as revenue, type of company, market cap, number of employees, industry, geography, etc. This provides users with an additional dimension for analysis that is not available elsewhere.

Why Insurance Program Benchmarking?

Insurance Program Benchmarking represents the most definitive way to determine what insurance coverages peer companies buy and how much they pay.

Benchmarking substantiates coverage recommendations, inform renewal situations, validate board opinions, shape risk manager and insurance buyer decisions, and reveal market direction and trends.

Advisen’s Insurance Program database represents a substantial sample of the US commercial insurance marketplace and can be aggregated to reveal:

- Market share and coverage affinities when aggregated by a broker
- Market share and premium share when aggregated by a carrier

Advisen Patent US8762178 B2

In June 2014, Advisen received US Patent 8762178 B2 for a “system and method for providing global information on risks and related hedging strategies.” This patent applies to a data aggregation module that is configured to
store financial and risk related information from a plurality of data sources, including private client data sources and public data sources. An analytical module is coupled with the data aggregation module, and configured to perform benchmarking estimates based on information retrieved from both private client and public data sources. Benchmarking estimates are performed against private and public data obtained from various industries.

What Insurance Program Data is Included?

Advisen analyzes individual insurance policies and insurance programs by focusing on 18 specific attributes listed below:

- Insured Name
- Insured Address
- Revenue
- Employee Count
- Market Cap
- Industry
- Company Type (public, private, government)
- Geography
- Coverage
- Line of Business
- Inception Date
- Expiration Date
- Premium
- Limit
- Retention
- Attachment Point
- Carrier
- Broker

Database Metrics

Advisen has collected Insurance Program data since 2002. Every entry in the Insurance Program database is linked to the underlying company record in the Advisen Master File (AMF) which consists of 24 million records.

The Benchmarking database contains records on 665,000 insureds, 5,100 brokers, 725 carriers, and 127 LOBs. Ninety-five percent of our data comes from the U.S.

Top 10 Industries by Program Count
- construction
- real estate
- transportation
- educational services
- energy
- healthcare
- business services
- wholesale trade
- social services
- hospitality

Top 5 LOBs by Program Count
- workers compensation
- umbrella
- auto
- package
- general liability

Top 5 LOBs by Total Premium
- workers comp
- D&O
- property
- umbrella
- general liability
Advisen Sources for Insurance Program Data

We have a total of 6,600 unique data contributors including 45 retail & wholesale brokers.

Data Share Partners (DSPs)

Advisen maintains partnerships with wholesale and retail brokers and actively pursues new partners. These companies are the primary sources of policies, and we refer to them as Data Share Partners (DSPs). The data exchange is built upon the understanding of mutual profitability between Advisen and its partners. Data Share Partners recognize that the full value of their data is best achieved by integrating it anonymously with external peer data in order to identify areas of competitive advantage and new opportunities for organic growth and increased client retention. Because Advisen also benefits from these visionary brokers, we provide a variety of offerings to support our partners’ efforts to achieve their corporate goals.

There are several reasons why DSPs contribute data:

• **DSP Benchmarks** – we deliver side-by-side insurance program benchmarks to illustrate the contributor’s marketplace prowess relative to Advisen’s aggregate database

• **Book of Business Review** – we compare the contributor’s book of business to our entire aggregate book of business to reveal the under-insured opportunities and over-insured situations in jeopardy

• **Data Augmentation** – we return contributed data with pre-selected data matched for demographic and exposures for proprietary internal analysis

• **Renewal Reports** – we deliver pre-formatted Client Insight reports ahead of each specified insured’s renewal to assist broker preparation and enhance stewardship meetings

• **Market Insight** – we return a report to show the data contributor where an unrecognized market share advantage exists that can be leveraged with an insurance company.

DSP Technical Details

On a monthly basis, a bulk extract from various Agency Management Systems (AMS) is executed and sent to Advisen via a secure, encrypted FTP channel. The most common systems used are Vertafore’s AMS 360 and Sagitta as well as Applied Systems, EPIC, TAM and Vision.

Our goal is to have as low an impact as possible on our DSP’s resources, which is why we prefer a standardized format for the extract. This allows all the processing to occur at Advisen. The monthly refresh is then executed automatically.

Data Entry & Research

Our researchers enter data, review exceptions, and manually fix data sent directly from insureds. They also review non-matches (see Common Data Matching Hurdles below for common causes) from our auto-ingestion processes to determine if a company record exists in our system and then assign the policies to that record or if necessary, research the company, add it to the system and then attach the associated policies.

Members of our data team along with product managers continually curate these bulk sources from Agency Management Systems for their value to our audience. The data analysts in turn, profile the data for completeness, consistency and validity.
An additional team of data engineers regularly write data ingestion procedures that integrate and enrich insurance policy data with Advisen company information and losses.

A separate data team makes sure the ingestion engine remains functional and that this data is incorporated into our real-time production environment for client use.

**Common Data Matching Hurdles**

Often, there are variations in the data submitted for certain fields like company name, company type, address, etc. In order to accommodate these variations, Advisen has created a combination of matching algorithms and manual procedures to ensure multiple records are conformed to a single entity to get a complete picture of each organization. Some typical examples of data discrepancies include:

- Input of Company Name: AIG vs. A.I.G.
- Differences in the insured's billing and legal addresses: PO Box vs street address
- Identification of Carrier Type: Writing company vs parent company

By linking each insurance policy to the underlying record in Advisen’s Master File listing of 24 million insureds, we also create a system in which entries for a given insured cannot be duplicated.

**Excluded Data**

Note that we don’t rely on data contributors to determine SIC codes or other demographic data; instead, we use insured names and insured addresses to match to our Advisen Master File list of 24 million insureds. This mapping enables us to relate Insurance Program data to SIC codes, employee counts, revenue, and any of the 2,000 demographic and exposure variables on any one specific insured.

So far, Advisen has focused exclusively on commercial property and casualty, so the methodology described herein does not apply to Personal Lines, Life, Health or Benefits data.

**Data Focus**

Our primary focus for data curation and collection is middle-market sized accounts and above, particularly those that make more discretionary purchases such as Cyber and D&O. We also welcome additional exposure data such as Total Insured Value and Vehicle Count.
Frequently Asked Questions (FAQ)

How much insurance program data do we have currently relative to the total market?
It varies according to industry and LOB, but on average, the Advisen insurance program data represents 8-15% of the US market.

What constitutes an insurance program? (Vs. a policy)
An insurance policy is an individual contract for coverage against one or more risks for set duration and limit. Logically grouping a collection of policies, often as the result of excess policies comprising a tower of coverage, forms a program. The total amount of coverage against loss events, program limit, is the value used in benchmarking.

Which LOBs are represented by this database?
The most common property and casualty lines include auto, general liability, and umbrella, but also included are more specialized lines such as kidnap & ransom.

How frequently do we update the database?
We load data monthly but get historical data extracts from our contributors so there are often additions to the database for past years as well as the current year.

How many people maintain and curate the database?
20 people, including product managers, data analysts, data engineers and data stewards, maintain the database on a full-time basis.

How does data physically get contributed to this database?
The data extracts from retail brokers and wholesaler brokers are imported by Advisen in structured delimited files via Excel or CSV, but the risk management community often sends data via email, spreadsheets, and other unstructured documents.

What does “Contributed Data” include?
The contributed data includes the key insured properties such as name and address along with the core attributes of each policy like LOB, effective period, premium, limit and attachment/deductible.

Why is certain contributed data excluded?
Data that fails our incoming validation rules is excluded from the Benchmarking database. For example, the relationship between premium and limit may fall outside expected thresholds because of missing zeros due to data entry error.

Benchmark Parameters

A good benchmark begins with having a complete program record: insured attributes and program attributes, especially LOB, premium, limit and retention.

Next, it is necessary to have a collection of programs to form a reasonable peer group. Preferably, this would include at least 20 comparative data points. However, in some industry segments there are fewer companies in the entire universe of peers so as few as 5 reference points are sufficient for an indicative benchmark.
Insurance Program Benchmark Examples

By connecting each insurance program record to the underlying record in the Advisen Master File of 24 million insureds, the user is enabled to relate insurance program data to revenues, employee counts, industry, market cap, net worth, profits, assets, etc.

EXAMPLE 1: Umbrella for Construction & Engineering accounts

The example below shows a typical scenario for a small construction company. Their premium is on the high-end, but their limit is in the mid to low range compared to their peer group. Consequently, their Rate Per Million (RPM) is at the 88th percentile.

SELECTED PEER GROUP FILTERS

Time Periods: Last 12 Months, 12 to 24 Months  Industries: Construction & Engineering
Coverage: Liability  Company Type: All Companies
LOBs: Umbrella/Excess  Company Exposure (Revenues): 0-50,000,000
Filter Benchmarking Range: None  Location: United States
Peer Group Size: 3,669

Advisen Premium Distribution by % of Counts

Construction & Engineering Peer Group by Revenues - [Less than 50m]
For Umbrella/Excess in USA / Last 12 to 24 Months

[Bar chart showing the distribution of premiums by revenue range with client comparison]
Advisen Limit Distribution by % of Counts
Construction & Engineering Peer Group by Revenues - [Less than 50m]
For Umbrella/Excess in USA / Last 12 to 24 Months

Advisen Rate Per Million Distribution Quartile by Values
Construction & Engineering Entire Peer Group by Revenues - [Less than 50m]
For Umbrella/Excess in USA / Last 12 to 24 Months
EXAMPLE 2: Industry differences for EPL Rate per Million

These charts suggest that the cost of EPL coverage varies widely by industry. The charts below compare commercial banks to retail specialty to tech software.

SELECTED PEER GROUP FILTERS

- **Time Periods**: Last 12 Months, 12 to 24 Months
- **Industries**: Finance-Banks, Commercial, Retail-Specialty, Tech-Software
- **Coverage**: Management Liability
- **Company Type**: All Companies
- **LOBs**: Employment Practices
- **Company Exposure (Revenues)**: Less than $25M, $25M to $100M
- **Filter Benchmarking Range**: None
- **Location**: United States

Peer Group Size: 758

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**Advisen Rate Per Million Distribution Quartile by Values**

- **Finance - Banks, Commercial Entire Peer Group by Revenues** - [Less than 25M to < 100M] For Employment Practices in USA / Last 12 to 24 Months
  - 25th%: 2.8k
  - 75th%: 28.9k
  - Median: 8.3k

- **Retail - Specialty Entire Peer Group by Revenues** - [Less than 25M to <100M] For Employment Practices in USA / Last 12 to 24 Months
  - 25th%: 3.3k
  - 75th%: 9.7k
  - Median: 6.1k

- **Tech - Software Entire Peer Group by Revenues** - [Less than 25M to <100M] For Employment Practices in USA / Last 12 to 24 Months
  - 25th%: 4.4k
  - 75th%: 12.4k
  - Median: 5.4k