

# **Importance of Insurance Data**

## **In Developing a Healthy Insurance Market**

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# Need for Data

- ◆ **Important Resource**—must be managed and protected as any other corporate asset
- ◆ **All data comes from the same source** → insurance data transactions
- ◆ **Many needs for data including:**
  - ◆ **Rate and price analysis**
  - ◆ **Rate regulation**
  - ◆ **Central data repository**

# The Insurance Pricing Problem

- ◆ Insurer agrees to pay in the future for an event that may or may not occur
- ◆ Credible, homogenous, quality data base is the starting point
- ◆ Few if any insurers have enough information → Law of Large Numbers
- ◆ Credible data—the extent to which one can rely on a given body of data, more data → greater credibility
- ◆ Homogenous data—similar rating characteristics should have similar expected costs
- ◆ Availability of aggregate data fosters competition

# Standards

- ◆ Standards necessary for internal communication, monitoring market conduct, to understand insurance products, to aggregate data properly
- ◆ Key information standards include:
  - ◆ Common insurance terminology
  - ◆ Common coverage definition, common forms
  - ◆ Solvency standards
  - ◆ Ratemaking standards
  - ◆ Data quality

# Financial versus Statistical Data

- ◆ Financial data for monitoring solvency and profitability
- ◆ Annual Statement key tool in the US, more comprehensive than a balance sheet
- ◆ Rate/Actuarial Analysis—rates shall not be “excessive, inadequate or unfairly discriminatory”
- ◆ Financial data does not present the detail necessary to do this
- ◆ Need large amounts of detailed, quality data
- ◆ Advisory Organizations/Statistical Agents — designated by regulators to aggregate and analyze data

# Shared Statistical Data Systems

- ◆ Data capture—rules for data collection
- ◆ Ratemaking detail
  - ◆ Premium and exposure information
  - ◆ Loss and allocated loss adjustment expense
  - ◆ Expense information
- ◆ Other considerations:
  - ◆ Methods used in compiling
  - ◆ Timing of data collection
  - ◆ How are coverages written
  - ◆ Associate all premium and loss information?

# Shared Statistical Data Systems

- ◆ Some guidelines for data collection
  - ◆ Should capture information used for rating at a minimum
  - ◆ Data elements should be uniform across lines
  - ◆ Values should be used instead of codes to the extent possible
  - ◆ Technical parameters should be flexible
- ◆ Aggregate data systems
  - ◆ Need to protect proprietary and “private” data

# Other Purposes For Shared Data

- ◆ Shared data systems
  - ◆ Example → fraud investigation
  - ◆ Transactional detail
  - ◆ Industry data base allows patterns to be identified
  - ◆ Concepts and process of aggregated systems apply to shared as well

# Data Management and Data Quality Best Practices

## ◆ Data management best practices include

- ◆ Data stewardship
- ◆ Standards
- ◆ Data quality
- ◆ Validating against third-party data
- ◆ Training
- ◆ Communication
- ◆ Measurement

## ◆ Data quality concepts

- ◆ Accuracy
- ◆ Validity
- ◆ Reasonability
- ◆ Completeness
- ◆ Timeliness

# Summary

- ◆ **Corporate asset, lifeblood of the industry**
- ◆ **Data meets many needs and serves many purposes**
- ◆ **Users must understand data and its uses**
- ◆ **Systems must be secure and well-designed**
- ◆ **Methods of aggregation must be suited to the problem being addressed**
- ◆ **Critical to the survival and prosperity of companies, the industry, and to meet obligations to policyholders**