

# Drowning in Data it Can't Easily Analyze, the Insurance Industry's Ship Comes In

Strategies for reducing data-related risks

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## Introduction

Ancient Babylonian merchants recorded some of the earliest known insurance policies, which involved paying for debt forgiveness if goods were lost at sea.

Some 4,000 years later, insurance firms take in and pay out trillions of dollars yearly, mostly using archaic, time-consuming and error-prone manual systems to collect unfathomable oceans of disparate data that they are challenged to effectively analyze.

However, a competitive advantage is being claimed by some insurers that have replaced cumbersome and inadequate spreadsheet-based systems with sophisticated Corporate Performance Management (CPM) software that reduces their own risk by enabling them to spend more time using data than entering it.

## Birth of the world's first big data industry

Insurance companies began collecting and analyzing big data before most people knew what data was, all in the name of predicting risk. They gather information from many varied and unaligned sources and stitch it together to create a single version of reality.

Health and life insurers create actuarial tables that predict length of life and the likelihood of illness, based on countless historical and lifestyle facts. They examine health records, incidence of disease, medical developments, smoking and obesity rates, education, family history, and anything that will help manage their own insurance risk.

Property, casualty and liability insurers build massive, complex models to predict the risk of anything from fire to floods, to damage to Bruce Springsteen's voice and Betty Grable's legs. They absorb data on weather and climate patterns, floodplains, population trends, community development and countless other variables.



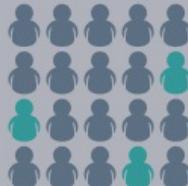
Using those risk assessments, insurers build out underwriting systems. What insurance will they offer to whom, under which circumstances and at what rates?

What claims will they pay when and under what conditions? Where can they offset financial risk by packaging it and selling it to reinsurers?

## HOW DO INSURANCE PROVIDERS MAKE MONEY?



A policyholder is just one of many people paying premiums on an ongoing basis



Over the lifetime of an insurance policy, some policyholders will make claims, but most will not

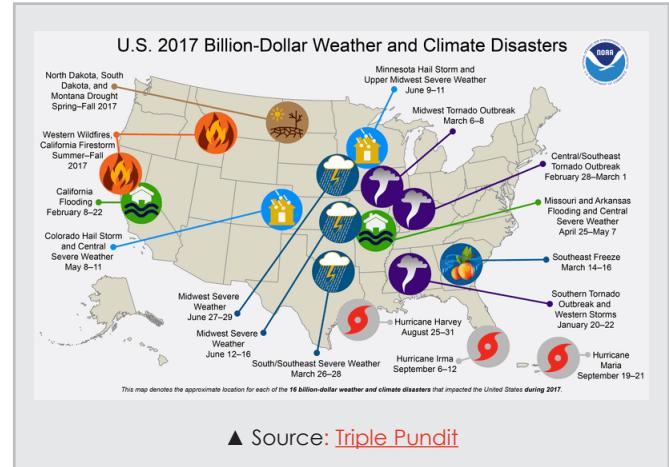


The premiums of many are pooled to pay for the claims of a few

Layered onto those fundamental questions about their product offerings, the firms also have to manage their own business. At the core, insurance firms must take in more money in premiums than they pay out in claims, which means integrating their general ledger with their premium and claim data. It means understanding what they call Deferred Acquisition Costs -- the cost of acquiring a new customer over the duration of the insurance contract. These costs can include salaries, commissions and bonuses to sales agents, marketing costs, client service costs, etc.

Additionally, to be profitable, insurance companies don't just tuck revenue from premiums into a mattress – they invest it. They are constantly looking at data based on the rates of return and managing their own financial risk by creating complex investment models. Multi-national insurers also have to manage currency risk, which they do by using hedging strategies. They must also track economic models to understand and predict the movements of interest rates, inflation, and growth.

Under ideal circumstances, the insurer collects all this data in a central repository and can quickly and effectively slice and dice it in ways that allow for the creation of "what-if" scenarios.



What if next year's hurricane season spawns five big storms in the Gulf Coast instead of four? What if we sell 20 percent more life insurance policies in Thailand? What if a drought in California causes more forest fires? What if interest rates collapse in Asia and skyrocket in North America?

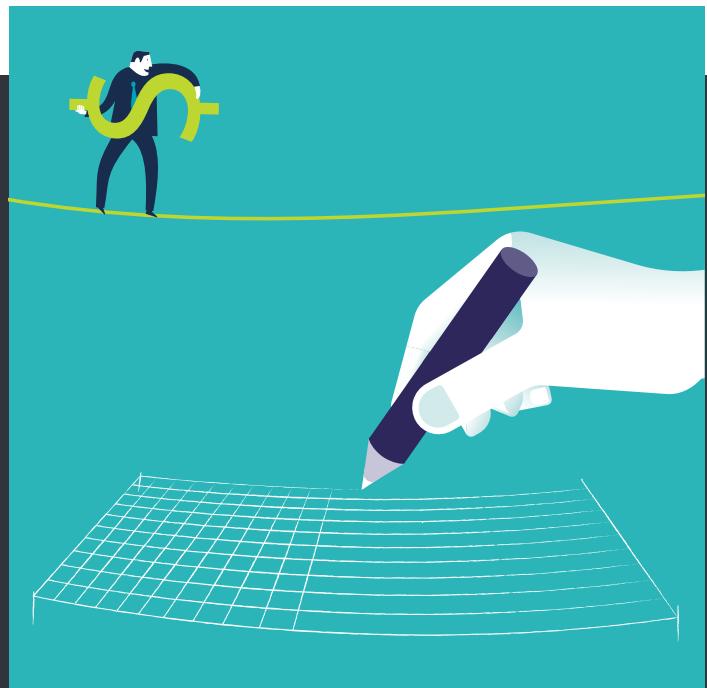
## The reality of less-than-ideal

Unfortunately for 70-80 percent of the insurance industry, ideal data management conditions do not exist. Most can collect the data they need but managing and using it creates an enormous headache.

In most cases, every business line and unit in an insurance company is using a different, mostly manual system to collect data. For example, to review insurance rates, the Office of Finance will export a list of premiums into a spreadsheet from one system. Then, they will pull out a list of claims from another system. One individual might then create a spreadsheet pivot table to compare and cross-reference the two. Yet, only the person who creates the table will have direct access to it. Or, there might be multiple copies of the table in the hands of different people, who are each making changes that are not reflected in the others' copies.

**Another challenge for insurance companies not using a centralized CPM tool is managing the sheer size of their data sets. Some legacy spreadsheets contain 1 million or more lines of data. These spreadsheets take ages to simply open and when they do open, they have layers upon layers of complexity. Some spreadsheets are linked to others but not all users have access to the linked spreadsheets. A user trying to generate a report might be locked out of a sub-system, resulting in an inaccurate report or wasted time trying to get the needed permissions to access the data. Another user might even delete a critical link.**

**In the less-than-ideal real world, data integrity, data consistency and data security are a daily problem.**



## Ship has come in for CPM risk control

A relatively small portion of the insurance industry has discovered it can reduce its data-related risks by creating a single data repository managed by Corporate Performance Management software.

By replacing precariously linked legacy systems with robust performance management tools, these companies reduce their operational costs and risks. They can spend significantly more time on data analysis and “what-if” scenarios.

Access to more useful data results in quicker responses to market opportunities and changes. It also creates an opportunity to stream in other data sources – like weather, traffic, population growth, and crime statistics – which strengthens risk analysis.

By aligning all disparate data streams and providing uniform and secure access, organizations are finding they can create one version of the truth. They are gaining a competitive advantage by reducing the amount of time it takes to extract data and create analytics tables. They slice and dice their data on demand, creating more ways to view and understand their results.

Faster, easier access means insurance companies can adjust premiums sooner or create new products quicker because they are seeing their data in near-real-time.

This access to consistent data means that unlike Babylonian merchants and the ancient insurers of 4,000 years ago, today's insurers that have adopted integrated performance management no longer need to wait for their ship to come in to see where they stand.



# About Prophix

Prophix develops innovative software that automates critical financial processes such as budgeting, planning, consolidation and reporting — improving a company's profitability and minimizing its risks. Thousands of forward-looking organizations in more than 90 countries use software from Prophix to gain increased visibility and insight into their business performance.

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