# Transform Insurance Pricing With Advanced Analytics

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## Business Impact

"Insurers must effectively adapt to new technological, market, and consumer complexities with better, more dynamic pricing if they want to maintain a competitive advantage in the insurance industry."

"The Growing Importance of Pricing,"
Boston Consulting Group

## Challenges

• **Market transparency through the digital economy.** The increasing appearance of online insurance aggregators is driving the market to a state of permanent price comparison.

• **Technology disruptors enabling new pricing models.** External data vendors, the Internet of Things, and data-enrichment services enable the creation of new, innovative pricing models that include dynamic pricing, better risk estimates and proper discounts based on willingness to pay, propensity to buy or probability of churn.

• **More sophisticated consumers.** Consumers are now open to new value propositions based on new variables (such as mobility and limited coverage) that require dynamic pricing structures.

## The Issue

Today's insurance companies operate in a complex digital economy where speed and data-driven decisioning separate winners from losers. Market leaders can adapt faster to the market. For example, unlike competitors that take months to deploy new pricing rates, they can deploy in a much shorter time frame. To stay relevant and competitive, they employ powerful, insightful pricing models. And they systematically improve portfolio profitability by optimally pricing individual customers. These capabilities are key to effectively growing and protecting their customer base.

For many insurance firms, achieving this requires new technologies that support new ways of working. For example, to improve the precision of their technical pricing, they need to deploy new rate-making capabilities and advanced algorithms. To maximize profit from their existing portfolios, they need sophisticated renewal optimization capabilities. And to implement rates in an agile manner for underwriting engines, they need expedient rate deployment capabilities.

## Our Approach

To help insurance providers be competitive in this changing market, SAS offers solutions that transform the entire rate-making process by delivering a diverse set of new capabilities in a comprehensive framework that allows companies to:

• **Leverage all data** – including structured and unstructured data, images, streaming sensor data, data of any complexity and data in any location (including the cloud). SAS provides a streamlined approach to data preparation and management, enabling better modeling and insights.

• **Develop pricing models faster** – using existing models in any language (such as SAS®, Python, R and Emblem) and then building SAS machine learning models to compare and determine the best model. Analysts can also compare variable transformations, feature engineering and algorithms using our in-memory platform.

• **Accelerate the deployment of rates into production** – by embedding data preparation tools and variable transformation code into the model scoring process, enabling the seamless capture of all components needed to rate a policy in a production environment.

• **Automatically govern model degradation** – systematically and continuously by evaluating the production models and proactively receiving alerts on model performance.

• **Optimize renewal pricing** – using machine learning techniques to balance customer attrition, price elasticity and profitability targets in order to arrive at the optimal pricing strategy for the entire portfolio.

Insurance pricing transformation using SAS includes several features that differentiate it from other products in the market, including:

- **Unified analytics** – with embedded machine learning and text analytics capabilities, a visual interface (which supports the full model life cycle and accelerates model development and deployment) and easy integration of open source resources.
- **Seamless integration capabilities** – that enable it to complement and coexist with existing software.
- **Flexible deployments** – supporting departmental to enterprisewide use cases. The underlying technology is consistent from bare metal to cloud deployments, thus allowing customers to easily transition to the cloud.
- **Transparency** – because SAS technology is a "white box," giving users the flexibility to incorporate it into their existing processes and strategic decisioning.
- **Synergies with other business applications** – so you can effectively use SAS solutions across the organization using APIs, visual interfaces, open source resources and coding options.
- **Support for proper model governance** – with end-to-end model development, assessment and deployment so insurers can choose the "best fit" model that meets their requirements.

**Caser Seguros**, a Spanish insurance company, offers a wide range of products for home, car, health, life and more.

### Key Challenges

The company's slow pricing and underwriting processes were hurting sales and the bottom line. Management needed to accelerate these processes to attract and retain customers amid a price war among insurance companies and an economic downturn.

### Solution

To optimize its renewal pricing and underwriting processes, Caser Seguros deployed a pricing transformation from SAS.

### Results

- Improved retention levels by 50% in key client segments.
- Expects a 3% to 5% percent increase in renewal profit.
- Analyzes market trends, evaluates competitor pricing and products, and makes pricing and underwriting decisions in real time.
- Detects pending customer attrition and takes action to prevent it.
- Calculates the impact of regulatory changes and adapts more quickly to market conditions.

### Improve analytical results and increase margins

What if you could fully exploit the potential of state-of-the-art machine learning algorithms and increase maturity levels using standard software?

### Increase throughput and better use existing resources

What if you could use robust, efficient and repeatable processes by using a standardized and unifying platform?

### Improve agility and increase speed to market

What if you could use a flexible real-time engine for fast rate development and deployment, giving actuaries more influence?

### With SAS, you can.

## SAS Facts

- More than 1,300 insurance companies worldwide are SAS customers.
- SAS offers extensive domain expertise and more than 40 years of experience working with insurance companies across the globe.

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