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Commitment Beyond Numbers

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The Benefits of Automated Underwriting

Robert J. Walling III, FCAS, MAAA, CERA

In the highly competitive commercial insurance market, there has always been a natural balance between underwriting (U/W) costs and the benefits of applying underwriting expertise to an account. The fundamental question has been, "Is this risk complex enough to justify the added expense of a detailed underwriting review?"

Several forces are actively changing this equilibrium and forcing commercial insurers to consider expanding the use of automated underwriting tools.

These forces include:

- Increases in available internal and external data
- Improvements in technology for both policy rating and business decision rules
- The expansion of the use of captives by large accounts leading to increased competition for middle markets accounts
- High levels of market capitalization fueling increased competition

Improvements in data and technology are also accelerating the speed of the insurance transaction. Commercial insurers are under significant pressure to speed up their quote and bind times in their underwriting and pricing processes for their agents and insureds.

Begin With the End in Mind

Automated underwriting tools have a number of specific goals:

- Reduce underwriting expenses, without substantially increasing loss experience, by emphasizing "straight through" processing (STP) of policies without underwriting review for insureds with acceptable levels of risk.
- Identify insureds with material underwriting risks and apply rigorous, appropriate levels of underwriting to them.
- Focus underwriting resources on the risks where they are most needed.
- Educate and train agents on the insurance company's risk appetite to increase new business conversion ratios.
- Provide additional authority to agents with proven expertise and success.

> **KEY POINT**
>
> Automated underwriting tools for small- and middle-market commercial lines accounts are a very effective means to reduce underwriting expenses without loss leakage and focus experienced underwriters on those loss exposures that truly do require their knowledge and expertise.

There are a variety of prospective new business account decisions that can be made by automated underwriting tools. These can range from allowing STP on all account coverages to requiring underwriting review of a specific coverage or coverages due to particular risk factors, or from requiring underwriting review of all account coverages to declining specific lines of coverage, or completely rejecting the account.

Keep in mind that automated underwriting is not a pricing tool per se. The decisions produced by an automated underwriting system are business decision rules governing how an account should be underwritten, not how it should be priced. Automated underwriting relies on the analytics-driven rating plans, tiering and scoring tools already in place to accurately price risk. There will, however, be significant overlaps between the characteristics used in automated underwriting systems and underwriting scoring and tiering plans and similar pricing tools. For example, a risk that produces a pricing score below a specified minimum may result in an automated underwriting decision to systematically decline quoting the coverage. Similarly, an automated underwriting tool may include rules to require underwriting review of all risks that have been in business less than three years or with credit scores below specified levels, both likely factors in the models used for premium determination.

An insurer's current book of business might be distributed among these categories in a manner consistent with the following example. Factors influencing the percentages include: distribution channel(s), agency network strength, average account size, quality of policy management and pricing platforms (See Exhibit 1).

Automated Underwriting Criteria

Which characteristics can be included in an automated underwriting tool? One must distinguish between factors that impact underwriting decisions at the account level versus those that impact underwriting decisions for a specific line of coverage. A "main street" commercial insurer's schematic might look something like Exhibit 2.

Account Level Issues

Numerous factors may be incorporated into an automated underwriting tool that would influence decisions at the account level, including all desired coverages. The first of these is the industry class of the risk. Commonly based on either Standard Industry Classification (SIC) or North American Industry Classification System (NAICS) codes, the industry class of an account may impact a decision whether or not to use STP, or to quote or decline a risk. The Best's Underwriting Guide (BUG) from A.M. Best, often with additional input from company underwriters, provides an excellent starting point for these class-level assessments[1]. The account-level decisions may be a weighting of the different lines giving more emphasis to the more critical lines for the class. There may also be some judgmental decisions based on appetite for a class and/or historical premium volume or loss experience. Lastly, there may be line-of-coverage underwriting decisions based on industry class.

Exhibit 1

Level of Underwriting	Percent of New Business Submissions	Comments
Straight Through Processing *	70-90%	U/W scoring and tiering plans control pricing. Goal is to expand this category without material loss leakage.
Underwriting Review of Specific Coverage(s) *	5-15%	U/W scoring and tiering plans control pricing with underwriting oversight. Additional cost may require minimum premium thresholds to justify expense.
Underwriting Review of All Coverage(s) *		
Decline	5-10%	U/W scoring and tiering plans control pricing with underwriting oversight. Additional cost may require minimum premium thresholds to justify expense.

[1] It may be a prohibitive commitment of time and staff to review all classes in the BUG. However, a detailed review of each class that has more than a specified amount of in-force premium or a certain percentage of the overall book of business would certainly be prudent.

Exhibit 2

Account Level Criteria				
Commercial Automobile (Liability vs. Physical Damage)	General Liability (Premises/Operations vs. Products/ Completed Ops)	Commercial Property (Include Crime, Inland Marine, etc.)	Workers Compensation	Management Liability (EPLI, D&O, Fiduciary, etc.)

Multistate accounts may result in different account-level underwriting decisions due to the complexities they introduce, particularly if one of the states is not in the insurer's traditional geographic footprint or the insurer has not had historically profitable underwriting results in that state. The lines of coverage composing the submission may also merit consideration. For example, some companies prohibit writing certain coverages, such as commercial automobile or workers compensation, on a monoline basis. Others specifically target accounts with a large number of coverages. Automated underwriting can be designed to replicate these underwriting philosophies. Financial strength and related proxies, such as credit score, years in business and account size (measured either in terms of exposures such as revenues, payroll or indicated premiums), can all be incorporated into account-level automated underwriting.

Business Line Issues

Other factors may influence automated underwriting decisions for specific lines of business. As previously mentioned, industry class may result in different decisions by coverage. For example, an insurer may find carpentry risks acceptable for STP on commercial package and commercial automobile but not on workers compensation. Again, the BUG, with additional input from experienced underwriters, provides a great starting point for these decision rules. At a line-of-business level, there may also be significant risks in secondary or incidental classes. Sports cars on a commercial automobile policy, snow plowing in the off-season for a landscape gardener, for-hire trucking by a farmer, roofing exposure for a carpentry risk, gun sales for a sporting goods store and alcohol or fireworks sales for a convenience store are all examples of this type of risk. Both the BUG and applications used by the insurance company also help identify these types of issues. Requests for specific coverages (e.g. pollution) or endorsements (e.g. employment practices liability or incidental professional liability) may also trigger underwriting decisions at the line-of-business level. Prior claims experience is another key consideration. For new business, prior experience may be available from industry resources or reflected in an experience modification factor. Agency characteristics may be considered within an automated underwriting tool. For example, an agent who predominantly writes trucking accounts or contractors may earn a different level of STP authority for those types of accounts based on his or her ability to profitably write these commercial risks as demonstrated by their premium volume and underwriting results. Similarly, agents that emphasize commercial accounts may generally have different authority levels for STP than personal lines agents who only write commercial accounts occasionally or as an accommodation. Expanded STP opportunities are privileges earned by agents through the volume of commercial lines business they produce and the underwriting results on those risks. STP can also be revoked for agents with poor underwriting results. This is one of the reasons why tracking both application conversion rates by agent and the mix of business by underwriting decision (STP, underwriter review or reject) at the agency level is so important. An added benefit of long-term monitoring of this information is that the impact of agent education/training should show trends in these metrics over time.

Automated Renewal Underwriting

The decision rules for renewals are somewhat different since the new business information has already been vetted. The focus of automated renewal underwriting should therefore focus on material changes. These changes include questions such as:

- Has there been significant claims activity?
- Has there been a material change in credit score?
- Have there been billing issues (e.g. late pay)?
- Has there been a material change in exposures, such as adding/deleting locations?
- Has there been a material change in premium, especially due to factors not directly related to the account (e.g. rate changes, etc.)?

This last question raises an additional element for consideration in automated renewal underwriting: It can be used to avoid unnecessary disruptions in the book of business by identifying accounts, even those subject to STP, which are experiencing counterintuitive premium changes or adjustments that may put them at risk for unnecessary non-renewal.

Automated renewal underwriting is somewhat similar to payroll or revenue audit decision rules: If the renewal criteria are met for an STP account, it remains STP at renewal. If one of the warning signs (e.g. claims activity, significant exposure growth, unusual renewal premium change) is detected, the issue will be reviewed. This approach may also allow some risks that required specific underwriting review as new business to become automated/STPs at renewal.

Conclusion

Automated underwriting tools for small- and middle-market commercial lines accounts are a very effective means to leverage internal and external data to improve customer service response times, reduce underwriting expenses without loss leakage and focus experienced underwriters on those loss exposures that truly do require their knowledge and expertise. Starting with the right data and underwriting input at both the account and policy levels, an STP system can be implemented to improve conversion ratios and overall business efficiency.

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