

# Wading into the private flood insurance market

## Considerations for new insurers

John Rollins, FCAS, MAAA



### Private residential flood insurance in the U.S. represents one of the best opportunities in decades to expand the reach of the property insurance industry.

A confluence of developments has catalyzed the transformation of a formerly niche offering into a potential sustainable, large-scale business. These developments include rapid advances in technology, an abundance of risk capital, a break in longstanding legislative status quo, and the human and economic impact of recent disasters on consumer awareness of the increasing flood hazard.

From startup insurers to some of the most venerable names in global insurance, alliances are being formed, leaders are developing strategies, and financial and human resources are being deployed to establish a private flood insurance presence. We believe this is ultimately a beneficial story for U.S. insurance consumers, helping to close the protection gap and improving the resilience of households and economies against future flood-related catastrophes. But as with most great undertakings, hard work and foresight are necessary for success. This article explores some questions and challenges for aspiring U.S. private flood insurers.

### Business plans and feasibility

Most successful initiatives start with a good plan, but a number of factors make pro-forma projections for new private flood programs difficult. The most important is the historical presence of the federal government's National Flood Insurance Program (NFIP). It currently writes the vast majority of residential policies in most states, and has historically used a one-size-fits-all policy form, a limited set of underwriting rules, and a pricing plan that is logical but based on dated technology and notions of flood risk. NFIP pricing is further constrained by consumer protections ordered by Congress, such as caps on annual renewal rate increases and explicitly subsidized rates for older properties and longstanding customers. Flood insurance is mandatory only for properties with federally-backed mortgages in Special Flood Hazard Areas (SFHAs), shown as high-risk areas on federal maps, so many potential customers have never previously bought flood insurance (and may not know that it is beneficial and not included in standard homeowners policies). These

factors combine to create uncertainty for private insurers marketing to customers whose current flood premium may not match their risk level, and whose reactions to new coverage options may be hard to predict.

Because consumers are often unaware of new private insurance options, and those who become aware may shop primarily on price, premium growth projections are critically dependent upon an understanding of several dynamics that require advanced analytics at highly granular geographic levels, such as:

- Estimates of take-up rates (the proportion of households that maintain flood insurance) inside and outside SFHAs, which help insurers project consumer response when they do and don't face mandatory purchase requirements.
- Large databases of properties with detailed descriptions (construction and occupancy features) and precise locations. For new insurers, these often take the form of "market baskets" of hypothetical properties that represent the spectrum of potential buyers in a region.
- Risk estimates, such as annually expected flood losses (and variation around those expectations), based on modern catastrophe models that simulate thousands of years of storm activity and local hazard intensity, and apply results to properties with described attributes at specific locations.
- Premium comparisons of proposed private flood costs against NFIP (and sometimes other private insurers) for large databases of policies, showing where a program can "win" against NFIP in various cohorts. Contrasts may include areas of high versus low flood risk, where mandatory purchase does or does not apply, and larger versus smaller homes.

The process of developing a feasibility study as laid out above is often iterative, homing in on a pricing algorithm that will allow sufficient pro-forma growth to attract capital and achieve economies of scale, while keeping reinsurance costs at reasonable levels and limiting the risk of unmanageable losses to the enterprise. Metrics such as "win rates" of the proposed rating plan against NFIP premiums and median difference between private and NFIP premiums are often analyzed to set realistic market sizes for pro-forma premium projections and stress-test business plans. In addition, premium differentials across various geographic elements, such as distance to coast, distance to nearest river, and relative elevation, are used to validate the rating plan's consideration of physical hazards.

## Alliances, cost structure, and reinsurance

Whatever the growth plan and whatever risk models are used for pricing, the insurer will have to ensure it is financially sound in order to take on additional flood risk in the business plan. Flood is a catastrophic peril, so a robust reinsurance program is paramount. In an admitted market, the insurer must also obtain a certificate of authority to write private flood insurance, and regulators may review both pro-forma projections and reinsurance plans.

An increasingly popular approach for startups and small insurers is a reinsurer-driven “turnkey” relationship, where a lead reinsurer’s risk model is used by the direct insurer for underwriting and pricing individual applicants, and that reinsurer agrees to accept (usually quota-share) the majority of the flood risk. This approach has the advantage of aligning direct pricing and reinsurance pricing incentives and models, and of keeping the new flood program from “polluting” the existing catastrophe reinsurance structure of an incumbent direct insurer writing homeowners and other policies in the same region. But the direct insurer may question its options if the program were to be withdrawn, leaving it with a book of customers (and a regulator) to keep satisfied and a need to find new funding for the catastrophe risk while limiting non-renewals. Additionally, even the most expansive quota-shares have caps on losses from an occurrence, leaving some residual extreme event risk with the direct insurer.

A variation on this approach is a partnership among a Managing General Agent (MGA) that acquires and prices customers, a “fronting insurer” that underwrites the direct policy, and a reinsurer (or panel of reinsurers), often organized by the MGA, that benefits the fronting insurer and nearly eliminates its net flood risk.

The MGA or insurer must have other strong alliances or capabilities for a successful program, including IT integration with the reinsurer, intermediaries (if multiple or syndicated reinsurers are used), catastrophe analytics and actuarial partners, contract and product development experts, and relationships with state regulators. Whatever the network of providers looks like, the expenses associated with acquisition, servicing, and claims must be properly reflected in the premium. Agent commission rates, MGA operations, vendor expenses, fronting fees, and reinsurance costs must be considered. The final target loss ratios used to “gross up” loss costs from risk models and create premiums must mirror the business plan and capital structure, and may differ across a region.

## Policy forms and contracts

One fundamental decision in designing private flood contracts is whether the coverage will take the form of an endorsement to the homeowners policy or a stand-alone flood policy. Of note, reinsurers are often agnostic to the form as long as the risk is priced well. Though the risks may be underwritten and priced similarly under either option, the decision carries major implications.

An endorsement may be attractive, particularly to an incumbent insurer, as it may simply remove the flood exclusion from the underlying policy subject to certain parameters and conditions. The form specifies modifications to the definitions, insured perils, coverage amounts, property not covered, exclusions, and general conditions, and is designed to minimize coverage gaps and overlaps with the underlying policy as well as to minimize disruption to policy underwriting and management workflows. Agents may readily understand the coverage and customers may enjoy the peace of mind from dealing with one agent, one insurer, and one claims adjuster after a loss.

However, it may be tricky to design an endorsement that regulators agree is both properly aligned with the underlying policy and “at least as broad as” equivalent NFIP coverage. The comparison against NFIP matters because most lenders want federal backing for their mortgages – which, by federal rules, requires equivalent or better coverage – and will be reluctant to accept an endorsement not validated as such by regulators. Florida addressed this issue by passing a law allowing “certification” of private flood policies and endorsements, and efforts are under way to expand this paradigm to other states and have it recognized by federal regulators.

Specifically, issues such as application of deductibles, sublimits on personal property, loss assessment coverage, the loss settlement basis, coinsurance provisions, and cancellation timelines may be sticking points. Using a stand-alone policy does not eliminate these considerations, but it can provide more flexibility in form design and avoid the constraint of compatibility with the underlying policy.

Alternatively, stand-alone flood policies are separate contracts for which workflow must be aligned with underlying policies to ensure a good customer experience. Renewal dates, cancellation timelines, whole-account billing, and other matters become more complex when an insurer adds a stand-alone flood policy to its homeowners offerings.

For startup insurers, an effective approach depends upon marketing with homeowners insurance partners and agents, who may see a stand-alone offering as harder to sell or may be prohibited from offering it given their existing relationships with incumbent insurers. In general, startups can assume that building premium volume will largely rest upon an ability to seamlessly partner with a sales force and existing insurers.

Note that additional considerations apply if the business plan involves a surplus lines stand-alone policy. By definition, it is not feasible to endorse an admitted underlying policy with a surplus lines policy, and such policies face “diligent effort” laws that restrict their sale to cases where an admitted market policy cannot easily be found. Though many states have relaxed such laws to encourage development of a private flood market, agents may still be reluctant to use surplus lines coverage except as a last resort, particularly in places where the “old reliable” NFIP is available.

## Pricing plans, models, and regulation

Much of the energy surrounding new private flood insurance is due to recent advances in the ability to build pricing plans that reflect highly localized and modern estimates of flood risk and to deliver those estimates rapidly at point of sale. A half dozen vendor catastrophe models, and several bespoke reinsurer models, are available that accept longitude-latitude and building attributes as input and return a probability curve of potential flood losses (or simply an average annual loss) for the location as output. It is the job of actuaries to evaluate the model's strengths and weaknesses and convert those modeled loss costs into premiums that reflect coverage and deductible levels, cost of capital, expenses, and minimum premiums, and deploy them in a geographically detailed rating plan. However, there are also many regulatory considerations that vary by jurisdiction as well as many business considerations that affect decisions regarding the pricing plan.

The overriding issue is that most states have a thicket of laws and regulations that pertain to homeowners insurance and are not generally compatible with modern pricing approaches underlying private flood insurance. A few of the most common issues are restrictions on the use of catastrophe models in pricing, restrictions on the size of renewal rate changes (and on the ability of insurers to phase in rate changes over multiple years), requirements to publish all rates (which could mean millions of numbers in a granular flood insurance pricing plan), and public records laws that prohibit confidentiality of rates and rating plans. These regulations were often written long ago and intended to protect homeowners insurance customers, but now serve as powerful disincentives for new insurers.

Some of these issues overlap with broader business considerations. Even in the absence of rate change restrictions, most private flood insurers struggle to balance stability and responsiveness in pricing plans driven by fast-evolving catastrophe models. In the end, a product that causes frequent premium disruption or results in opaque premiums or premiums that routinely exceed a known alternative in the NFIP may prove a challenging sell to both agents and consumers.

## Claims

As of today, the emerging private flood market's claims handling abilities are largely untested after an extreme disaster event. Most insurers believe that private sector incentives to work seamlessly with one agent and one claims adjuster (if the flood coverage is an endorsement) will benefit policyholders, and eliminate incentives to push losses onto the NFIP. The same

modern, granular data and workflows used to underwrite private flood may also benefit the claims process, particularly when resources are stressed after catastrophes. But we are not yet in position to make broad comparisons about the relative claims experience for private flood to either traditional homeowners insurance or federal flood coverage.

## Environmental and social goals

Despite all the challenges discussed here, we close on a positive note. The hard work of bringing private flood insurance to market serves an important social goal – stability and recovery of families, communities, and economies after natural disasters. The Federal Emergency Management Authority's (FEMA) “moonshot” goals include a doubling of the roughly 5 million total U.S. households covered for flood by 2023 – agnostic to the relative contributions of the private and public sector in closing the protection gap. Other analysts have noted that over 40 million U.S. households are exposed to measurable flooding risk, and the real endgame should be to ensure that nearly all of these homes are covered.

Further, the growing recognition that climate trends are increasing the need for resilience against what could be unprecedented disasters is in alignment with the rapid expansion of private flood coverage. Insurers and vendors that are improving their awareness of social goals (and reporting to regulators and ratings agencies about them) are “doing well by doing good” if they consider becoming part of the private flood ecosystem. It is an emerging market with the potential for risks and rewards, none as important as helping Americans become more resilient against devastating floods.

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### CONTACT

John Rollins  
[john.rollins@milliman.com](mailto:john.rollins@milliman.com)