

Government of Puerto Rico
OFFICE OF THE COMMISSIONER OF INSURANCE OF PUERTO RICO
San Juan, Puerto Rico

**RULE NO. 105 OF THE REGULATIONS OF THE INSURANCE CODE
OF PUERTO RICO**

**REQUIREMENTS FOR FILING AND PROCESSING
PARAMETRIC INSURANCE**

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SECTION 1. - LEGAL AUTHORITY

The Office of the Commissioner of Insurance of Puerto Rico adopts Rule No. 105, entitled "Requirements for Filing and Processing Parametric Insurance," under the powers and authority conferred in Section 2.030(11) of the Puerto Rico Insurance Code, Act No. 77 of June 19, 1957, as amended, as well as the provisions of Act No. 38 of June 30, 2017, as amended, the "Uniform Administrative Procedure Act of the Government of Puerto Rico."

SECTION 2.- PURPOSE AND SCOPE

This Rule is adopted to establish the regulatory framework for coverage of parameterizable risks in parametric insurance. The Rule is adopted to standardize the documentation necessary for the approval and supervision of parametric insurance in Puerto Rico.

The guidelines set forth in this Rule shall apply to all new product filings, modifications to approved products, and rate adjustments of parametric insurance products filed with the Office of the Commissioner of Insurance. The guidelines set

forth in this Rule apply to all insurers, producers, authorized representatives, agents, distributors, administrators, or solicitors of parametric insurance products. The provisions set forth in Chapters 11 and 12 of the Puerto Rico Insurance Code shall apply to parametric insurance filings. In addition, Rule 55 of the Regulations of the Insurance Code of Puerto Rico on the conditions of cancellation and renewal of policies will also apply to parametric insurance.

SECTION 3. - STATEMENT OF NEED AND PURPOSE

The Office of the Commissioner of Insurance recognizes that parametric insurance is a type of insurance contract where the insured has coverage in the event of precipitous, unforeseen, and unintended risk events, contemplated in the insurance contract, which could cause losses to the insured property or interests. In parametric insurance, unlike traditional insurance, the insured is not required to justify the occurrence of damage and to present evidence of the valuation of the damage that would require any type of adjustment of the possible loss or indemnification. This is the case because parametric insurance pays the insured in the event of the occurrence of the covered event described in the policy contract, even if the event does not cause any damage. The insured must effectively have an exposure to the occurrence of the covered event, even if a loss does not materialize when the event occurs. Under this Rule, the *insurable object* is recognized as the event or events specifically covered by the policy contract based on the parameters defined therein. In addition, the *insurable interest* is defined as the possible direct or indirect economic losses that the insured may have upon the occurrence of the event covered by the policy. Parametric insurance

addresses the need of insurance consumers to have products to protect their exposure to risk through which they can obtain rapid indemnification upon the occurrence of the covered event. Therefore, this Rule recognizes parametric insurance as an additional tool for consumer protection since it addresses the growing need to have rapid financial support to be able to return to normality after the covered event has occurred, within the parameters provided for in the contract, without claims and adjustment processes that are often costly and tedious, to obtain the contracted indemnification. In addition, the Rule establishes specific guidelines that promote uniformity in the filing of these products for approval by the Office of the Commissioner of Insurance.

It is clarified that microinsurance products established under the parametric model will be exempt from the provisions of this Rule and will be governed by the provisions of Chapter 15 of the Puerto Rico Insurance Code on Microinsurance and Rule 103 of the Regulations of the Insurance Code adopted under that Chapter.

SECTION 4. -DEFINITIONS

For the purposes of this Rule, the following terms shall have the following meanings:

- a. "**Parametric insurance**" - also called index-based or indexed insurance, is a class within the definition of insurance, that does not indemnify an observed or adjusted loss different from traditional insurance but insures the insured against the occurrence of a specific event through the payment or disbursement of a predetermined amount of money as established in the policy based on the occurrence and magnitude of the insured event. The insurable object is verified

at the time of contracting and consists of the insured having a reasonable expectation that they would incur an economic loss if the adverse event predetermined in the contract occurs. Parametric insurance may provide for a method of automatic payment or disbursement by the insurer after the catalytic or triggering event has occurred in accordance with the terms of the policy; or a method of payment or disbursement from the insurer once the insured notifies the occurrence of the event.

- b. **"Catalytic event(s)"** - is defined as the event expressed in the parametric insurance policy and which, in this case, is considered the insurable object.
- c. **"Magnitude of the catalytic event ("triggers" or parameters) - the point representing the intensity of a catalytic event from which the insurer is entitled to indemnification under the insurance contract.**
- d. **"Base risk"** - The risk that parametric insurance identifies the need to pay indemnification, even though the catalytic event has not represented direct or indirect economic losses to the insured.
- e. **"Technical Note"** means the supporting documentation and information that the insurer is required to submit to the Office of the Commissioner of Insurance with the actuarial elements or factors used to determinate the product rate, including a summary of the analysis used to develop the parametric insurance risk model.
- f. **"Anchor variable"** means the position or area of the site that serves as the basis for calculating the parameters for determining parametric insurance coverage.

- g. **"Risk Modeling"** - The statistical and scientific analysis of the risk in question by means of which insurance parameters are defined. This analysis can be based on specific values or on the probability distribution of different random variables considered to determine the occurrence of the insured event.

SECTION 5. - CRITERIA FOR THE EVALUATION OF PARAMETRIC INSURANCE

5.1 As alternative coverage, the evaluation of parametric insurance shall be based on the following considerations:

- a. Under the provisions of Section 25.030 of the Puerto Rico Insurance Code, 26 L.P.R.A. sec. 2503, all insurers, at the time of the purchase of catastrophic insurance reinsurance, shall be required to establish a minimum reserve of at least two percent (2%) of its catastrophic hurricane exposure. By regulation, order, or administrative determination to that effect, the Commissioner shall establish the procedure to be followed by the insurer to comply with this obligation.
- b. Parametric insurance is subject to the special premium tax provided for in Section 7.022 of the Puerto Rico Insurance Code, 26 L.P.R.A. sec. 702c.
- c. The inherent design of parametric insurance does not entail the imposition of deductibles or coinsurance on the insured.
- d. Given the design of parametric insurance, payment of indemnity under parametric insurance does not entail a claim adjustment process.

- e. The databases used to define the parametric model and the corresponding payments based on the catalytic event, both public and private, must be accessible, reliable, and contain sufficient historical data to generate a scientifically and statistically robust risk model.
- f. Compliance with the requirements of the Technical Note.

SECTION 6. - TYPES OF PARAMETRIC INSURANCE

6.1 The following types of parametric insurance are those known to and explicitly accepted for filing and approval by the Office of the Commissioner of Insurance:

- a. Aggregate Loss: An insurance contract where payment to the insured is based on a parameter of the aggregate average loss of a defined area, instead of the insured individual's losses.
- b. Pure: A contract where the insurer makes a predetermined payment, usually of a binary type, to the insured (payment or non-payment/yes or no), when the covered event reaches the specified trigger.
- c. Modeling: A contract in which the parameter, payment, and pricing are defined through a model, so that the insurer makes the payment according to the modeled losses in the area affected by the event.¹ This does not preclude the application of Chapter 12 of the Puerto Rico Insurance Code in the evaluation of the factors for determining or calculating rates.

¹ Application of Parametric Insurance in Principle/Regulation-Compliant and Innovative Ways. Xiao (Joyce) Lin, W. Jean Kwon

6.2 However, the provisions herein do not limit the possibility of further advances in technology and the development of parametric insurance as defined herein, provided that such comply with the characteristics established and required for parametric insurance under this Rule.

SECTION 7. -FILING OF FORMS AND RATES

The insurer shall submit the rates and forms of parametric insurance products to the Commissioner for approval prior to their use in the marketplace. The insurer may use the parametric insurance product submitted under this Rule upon approval or after sixty (60) days from the date of its filing, unless the Commissioner does not approve its use. The Commissioner may extend the period within which he or she may affirmatively approve or not approve such form for no more than another sixty (60) days by notifying the extension prior to the expiration of the initial sixty (60) day period. It is further provided that in the event that the information provided in the filing is insufficient and therefore the Commissioner requests additional information, the period elapsed from the time the Commissioner notifies the request for additional information until it is submitted, will not count in the calculation of the sixty (60) day period indicated above.

7.2 The Commissioner, upon written notice and notice of the right to request a hearing, may at any time withdraw approval of the continued use of an approved parametric insurance product if the insurer fails to comply with any of the provisions of this Rule or the Puerto Rico Insurance Code.

7.3 All filings of forms and rates for parametric insurance products shall be made through the System for Electronic Rate and Form Filing ("SERFF"), for which the number 33 "Other Lines of Business" must be selected as the Type (TOI).

7.4 The filing must include a Cover Letter indicating the name of the insurer making the filing, signed by an authorized person, in compliance with Section 3(a)(1) of Rule 24 of the Regulations of the Insurance Code of Puerto Rico. The cover letter will be included in the "Supporting Documentation" section of SERFF. The Cover Letter will contain the following information:

- a. Detailed explanation of the purpose of the filing, as well as the intended use of each rate form or manual, as the case may be.
- b. The name of all forms submitted with their corresponding identification numbers.
- c. If the filing was previously denied approval, an explanation shall be provided with regard to how all objections noted in the letter denying approval have been addressed.
- d. If the form or rate submitted is similar to another previously approved or under evaluation, the differences between such and the reason for filing the new form or rate must be indicated.

7.5 Documents or files must be in unprotected PDF or Excel format so that the file can be searched. All files in Excel must also be submitted in PDF format for printing. Scanned documents will not be accepted.

7.6 All fields in SERFF must be completed as applicable for the filing:

7.7 Include the following documents in the **SERFF Supporting Documentation**

Tab:

- a. Cover Letter.
- b. Memoranda, evidence of prior approval, translation certifications.
- c. If it is a revision, report any changes made to the form and/or manual with a redlined document of the previous version.
- d. Actuarial memoranda and certifications.
- e. Technical Note (see Section 8.2).
- f. Any other documentation necessary to supplement or validate any of the documents set forth above, as required by the Office of the Commissioner of Insurance of Puerto Rico.

7.8 In the event that the Office of the Commissioner of Insurance notifies an objection, the following shall be the response:

- a. The letter of objection will be answered with a "Response Letter", not through "Amendments" nor through "Note to Reviewer."
- b. Each objection must be answered individually in the Response Letter and shall include the revised form ("redlined document") as appropriate.
- c. Amendments should be used only if the attachment of the document or form has been omitted, or if it is necessary to correct any errors in the attached documents, before the status of the file changes to "Intake Complete." Authorization must be requested from the reviewer of the file

through a "Note to Reviewer" in SERFF or email to make an "Amendment."

- d. All communications - requests for extensions, requests for status, etc. - must be included in the SERFF system as a "Note to Reviewer."
- e. Any other means of communication will be deemed not to have been received.

SECTION 8. - CONTENT REQUIREMENTS FOR SUPPORTING DOCUMENTATION

8.1 Given the nature of parametric insurance, the parametric insurance policy must include as an attachment an "Explanatory Guide for the Insured" in order to inform the consumer in an effective and simple way of the terms and scope of the policy. The "Explanatory Guide for the Insured" must provide information about the coverage, the basic concepts of how parametric insurance works and the processes for issuing the policy, renewal, and receiving indemnification. In addition, at least one example demonstrating the historical performance of the product must be included.

8.2 To provide uniformity in the details that are needed to evaluate a new product or the adjustment of an existing parametric insurance product, the filing of a *Technical Note*, **reflecting the risk-modeling process and including the following information**, will be required:

- a) Product Overview
- b) Product Features
 - i. Trade name of the product

- ii. Special Product Features
- c) Coverage Description:
 - i. Risks & Covered Times
 - Type
 - Period: indicate the coverage period of the policy and the relationship of the periods to the risk covered.
 - ii. Maximum liability
 - Indicate the amount insured - or options - and the justification.
 - iii. Coverage Conditions
- d) Definitions: Include all definitions of terms related to policy coverage that are important for the insured to know and the conditions of the product being purchased.
- e) Database: Include all sources of information used for the determination of the parametric model.
 - i. Include the name of the database, the organization that generates the database, the format of the data obtained, where it may be accessed, the spatiotemporal resolution, and the length of the historical series.
 - ii. For risk modeling to be statistically robust, the database must have sufficient historical series.
- f) Model Parameters:
 - i. Coverage Periods
 - ii. Index or trigger level(s)

- iii. Anchor variable: Indicate the geographic area that will be used to determine the payment or disbursement of indemnification in the model and the method to determine the location. For example, if the model is designed by areas, municipalities, or specific georeferencing points of the insured. Show how the model parameters vary based on the georeference variable.
 - iv. Other parameters (if applicable:) Indicate other parameters that are considered necessary to define the indemnification formula.
- g) Indemnification Formula: The indemnification model that indicates how payments are calculated and the relationship between the magnitude of the event and the indemnification. The model must include the Payout Curve which defines and graphically shows how the model used for the percentage of the payment to be made based on the parameters.
- h) Basic Information on Premiums:
- i. Pure risk premium
 - ii. Historical payouts: Show a summary of the actuarial analysis of historical claims on which the pure risk premium is based.
 - iii. Correlation between historical payouts and observed losses: The risk modeling results (the parameters) should have a significant correlation with the historical impacts of the modeled risk. In sum, it should be shown how the hypothetical historical payouts and the observed historical losses are correlated, referring to more than one historical

event. It is understood that observed historical loss data may be limited, therefore, a fine-scale and/or precise analysis (e.g. individual losses) is not required, but rather an analysis that provides the necessary evidence for the Office of the Commissioner of Insurance to evaluate the performance of the model based on historical events of the risk in question.

- i) Indemnification Process: Describe the procedure used to process payment to the insured following the occurrence of an event, including how notification of payment is made, if required, and how payment will be processed. It is further provided that payment to the insured must be made on or before ten (10) calendar days from the date of the catalytic event or the date of notification of the occurrence of the event, if payment is required. In the event of interruption of the insurer's operations, the term shall begin to run from the resumption of operations.
- j) Calculation process: Indicate the steps required to process the model and define the occurrence of a catalytic event that generates the insurer's duty to indemnify the insured. This must include the entities involved in the process and the time frames from the collection of raw data after the occurrence of the event to the estimated payment of the indemnification.
- k) Comparative Summary with Other State-of-the-Art Products at a Global Level: Provide a summary of international experiences and cutting-edge products at a global level that are similar to this filing. The industry faces

constant technological development that can lead to more precise products and models. For this reason, filers are encouraged to submit products in accordance with the most recent modeling in parametric insurance, aligned with the technological advances in place at the time of the filing.

SECTION 9. - SEVERABILITY

If any word, sentence, paragraph, clause, section, or portion of this Rule is found to be void or invalidated by a court of competent jurisdiction, the judgment or order rendered by such court shall not affect or invalidate the remaining provisions of the Rule; that is to say, the effect thereof will be limited to the word, sentence, paragraph, clause, section, or part that has been nullified or invalidated.

SECTION 10. -EFFECT

The provisions of this Rule shall enter into effect thirty (30) days after filing with the Department of State of Puerto Rico, in compliance with the provisions of Act No. 38-2017, supra.

SIGNED

ALEXANDER S. ADAMS-VEGA, ESQ.
COMMISSIONER OF INSURANCE OF PUERTO RICO

Approval Date:

Date of Filing with the Department of State:

Date of Filing with the Library of the Legislature: