Posting Title	:	Statistical studies and evaluations of Interest Rate, Banking Spread and Credit Risk in financing with BNDES resources using machine learning
Department/ Office	:	Economic Commission for Latin America and the Caribbean
Location	:	Brasília
Posting Period	:	20 December 2022 - 27 December 2022
Job Opening number	:	22-Economic Commission for Latin America and the Caribbean-197993-Consultant

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United Nations Core Values: Integrity, Professionalism, Respect for Diversity

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Duties And Responsibilities

The consultancy will present predictive models for the tax rate, bank spread and credit risk, with scenario simulations, evaluations of results and estimates.

The activities to be carried out by the consultancy are:
- perform SAS and Python R programming;
- present a description of the results of the evaluations and analyzes of the BNDES' interest rates;
- present a description of the results of the evaluations and analyzes of Credit Risk and Banking Spread
- present technical document containing simulation results and study with final estimates.

Work Location

Brasília

Expected Duration

180 Days

Result of Service

It is expected that at the end of the research, predictive models will be obtained for the tax rate, bank spread and credit risk. The results obtained provide forecasts of cenários in relation to variables of interest (juror taxes, bank spread and credit risk). Furthermore, it is possible to identify the main determinants of these indicators, refuting or confirming theoretical hypotheses and outlining conclusions and recommendations for public policies for the financial sector.

Qualifications/special skills

-An advanced university degree (master's degree or equivalent) in Applied Statistics or demography or social studies. - Certification in Data Science.
-- Minimum of 05 years of experience in data analysis, tabulation and data extraction, statistical modeling with different tools and machine learning, economic evaluations and development activities in SAS, R and Python.

Language

- Fluency in Portuguese
- Intermediary English

Additional Information

Outputs/ Works Assignment:
The consultant will develop predictive models for the tax rate, bank spread and credit risk and will carry out appraisals and estimates, in 4 reports (products). The consultant should deliver the completed plans in the following order and dates:
- Product 1. SAS and Python R programming and description of the first results. To be submitted 30 days after start date.
-Product 2 - Technical document containing evaluations and analysis of BNDES interest rates . To be submitted 60 days after start;
-Product 3 - Technical document containing evaluations and analyzes of Credit Risk and Banking Spread . To be submitted 120 days after start;
Product 4. Technical document containing reviews of the first results and study with final estimates. To be submitted 180 days after start

The reports should be drafted in Portuguese in an editable format agreed with the supervisor

United Nations Considerations

The United Nations shall place no restrictions on the eligibility of men and women to participate in any capacity and under conditions of equality in its principal and subsidiary organs. (Charter of the United Nations - Chapter 3, article 8). The United Nations Secretariat is a non-smoking environment.

As per UN policy, Consultants and Individual Contractors may not apply for or be appointed to any position in the Professional or above categories and for positions at the FS-6 and FS-7 levels in the Field Service category within six months of the end of their current or most recent service. This restriction does not apply to associate experts(Junior Professional Officers) appointed under the Staff Rules.

No Fee

THE UNITED NATIONS DOES NOT CHARGE A FEE AT ANY STAGE OF THE RECRUITMENT PROCESS (APPLICATION, INTERVIEW MEETING, PROCESSING, OR TRAINING). THE UNITED NATIONS DOES NOT CONCERN ITSELF WITH INFORMATION ON APPLICANTS' BANK ACCOUNTS.