Selection process: RG-T3163-P001

ANNEX A

REGIONAL RG-T3163 IFD/CTI and CCB/CCB

Consultancy for Designing and Implementing Innovation Firm Performance and Gender (IFPG) Issues in Enterprises in the Caribbean 2018 Survey

Inter-American Development Bank
Terms of Reference
Innovation Performance and Gender (IFPG) Issues in Enterprises in the Caribbean
(RG-T3163)

#### I. BACKGROUND AND JUSTIFICATION

- 1.1 Established in 1959, the Inter-American Development Bank ("IDB" or "Bank") is the main source of financing for economic, social and institutional development in Latin America and the Caribbean. It provides loans, grants, guarantees, policy advice and technical assistance to the public and private sectors of its borrowing countries.
- 1.2 On March 20, 2016, the IDB Board approved the creation of the Compete Caribbean Partnership Facility (CCPF) as a multi-donor Trust Fund jointly funded by the United Kingdom's Department for International Development (DFID), the Caribbean Development Bank (CDB), and the Government of Canada. The ultimate goal of the Compete Caribbean Partnership Facility is to support the Caribbean region in increasing productivity and Caribbean firms' contribution to economic growth. The specific objectives are to (i) support firms to grow, innovate and enter new sectors and markets; and (ii) to promote an environment that enables innovation and growth. The Facility supports productivity and economic growth in the Caribbean by focusing on two thematic pillars: (i) productivity and innovation in firms; and (ii) enhancing the business and innovation climate. One cross cutting issue relates to applied knowledge, under which this activity is framed. The Facility is executed by Inter-American Development Bank and all procedures related to operations and implementation must comply with IDB policies.
- 1.3 Phase 1 of Compete Caribbean (2010-17) supported the creation of 12,000 jobs (80% for women and youth); increased revenue generated by participating firms and clusters (USD\$153m or a 41% increase); increased exports by participating firms and clusters (USD\$37m or a 23% increase); and contributed to improvements in the business environment in several Caribbean countries (e.g.: Jamaica's ranking for Access to Finance improved its position to 12 from 189).
- 1.4 The Caribbean Enterprise and Indicator Survey 2011 (CES 2011) was funded by Phase I of Compete Caribbean and carried out as part of the World Bank's Latin American and Caribbean Enterprise Survey (LACES). During 2013 2014 Phase I of Compete Caribbean funded the Productivity, Technology, and Innovation (PROTEqIN) survey as an update of the 2011 exercise, keeping the same core questions and including modules on innovation behavior and labor management practices, and using a sample framework comprising a panel of 96% of firms extracted from CES 2011.

- 1.5 As part of the activities envisioned in the second phase of the Compete Caribbean Program, a third round of business surveys focusing on Innovation, Performance and Gender (IFPG) is envisioned, focusing on the innovative behavior of Caribbean businesses, and is aligned with innovation surveys routinely carried out by statistical offices in Latin America, as well as the recent developments and methodological recommendations from by the Oslo Manual (OECD, Eurostat). This new exercise requires a new sample framework of enterprises that is representative of the current Caribbean economy, given that the last sample framework developed in 2011 for CES that was used again for PROTEgIN needs to be updated. This new exercise will also encourage the use of recent technological developments (machine learning, pattern recognition, data mining, visualization, etc.) that allow for the use and analysis of Big Data in developing the sample framework or in complementing data collected. In addition, the topic of gender in the private sector in the Caribbean will be more widely addressed than in previous surveys, in alignment with the stronger gender focus of the second phase of the Caribbean program<sup>1</sup>.
- 1.6 The Bank has a long history working with the Caribbean Community (CARICOM) on technical cooperation projects to improve statistical production on both the national and regional level. Project activities described in the current TC will be coordinated closely with CARICOM and the Project for the Regional Advancement of Statistics in the Caribbean (PRASC). PRASC is an initiative implemented by Statistics Canada whose direct beneficiaries are the National Statistical Offices, National Statistical Systems and the Regional Statistical System of the Caribbean region. One of the four components of the PRASC focuses on Business Survey Infrastructure, by improving the methodology of business surveys for better economic statistics. Activities are carried out in three phases: knowledge exchange, development and testing, and implementation of the business survey infrastructure at the national level. Lessons learned at the national level are used to establish a foundation for regional guidelines for the development and maintenance of statistical business registers.
- 1.7 In addition, the Competitiveness, Innovation and Technology Division of the IDB has been building the Latin American innovation surveys (LAIS) dataset, a harmonized and anonymized dataset of cross sectional data at the firm level, covering 10 countries over the period 2004-2016, including around 700 variables across 12 themes to describe innovation in Latin American firms (not covering the Caribbean). The methodology for harmonization includes the construction of variables (quantitative and qualitative) and the selection of variables according to two criteria: (i) optimize coverage at the survey level: Include variables common to all surveys; (ii) optimize coverage at the level of the questionnaire: Include variables that are common to many of the surveys. The consultant shall take into account these complementary activities and aim at: 1) coordination with the PRASC and the National Statistical Offices to incorporate lessons learned from their development of business registries and data collection exercises (i.e. non-response rates, etc.); 2) producing a survey instrument whose data can be harmonized with the LAIS.

There are various options and techniques to build a frame population and then to do the sampling when there is no official business register to do it. Traditional methods would recommend to access tax revenue information (if available) or data from the Chambers of Commerce to build the frame and target population. Today with data mining and analytics techniques open and online data can be accessed from which the sample can be built. Online data is updated frequently. The combination of all the data is known as Big Data (structured, semi-structured and non -structured, "massive" data).

#### II. OBJECTIVES

- 2.1 The IFPG survey aims to achieve the following objectives:
  - a. To define a new sample frame that is representative of the major economic sectors in each country;
  - b. To define a new methodological approach that includes the development of relevant, comparable indicators, adopting international standards and guidelines for collecting statistical data;
  - c. To provide statistically significant business environment indicators that are comparable across countries;
  - d. To collect data on business performance, innovative activities, technology use, management practices, and gender and business climate;
  - e. To harmonize, as much as possible, the data collection in Caribbean countries and territories to the guidelines of the Olso Manual and the data collected by the Innovation Surveys routinely carried out throughout Latin America.

#### III. SCOPE OF WORK AND TASKS

## A. Methodological Approach and Sample Framework.

- 3.1 The Consultant shall define a methodological approach to develop the sample framework, the optimal and most relevant number of questions, the replication of questions from other initiatives in the region and outside the region, and the data collection method. The sampling methodology shall define the stratification to be used, determined fundamentally by unit size and industry. A simple random sample is an inefficient method of estimating the value of variable, therefore it is not recommended.
- 3.2 As part of the definition of the methodological approach, the consultant shall consult with the National Statistical Offices (NSOs) and will include actions to improve the response rates<sup>2</sup>, including best practices and lessons learned from other experiences in the Caribbean, if applicable. In addition, given that the innovation within smaller businesses can be quite different from what occurs in the larger businesses, the methodology will ensure the representativeness of the results.
- 3.3 In determining the optimal sample size for stratified sample surveys, it is important to account for the desired level of precision in the estimates. The sample size should also be adjusted to reflect the expected non-response rate, the expected rates of misclassification of units, and other deficiencies in the survey frame used for sampling. The target sample size can be calculated using a target precision or confidence level and data on the number of units, the size of the units and the variability of the main variables of interest for the stratum. A few general rules should be used to select the stratification variables: stratification of the population should lead to strata that are as homogeneous as possible in terms of their innovation activities. Given that the innovation activities of units in different industries and in different size classes can differ

Previous experience from the work of Statistics Canada (PRASC) with the NSOs in the region, has found very low response rates regarding business surveys.

- significantly, it is recommended that the stratification of random sample innovation surveys should be based on the size and industrial sector (principal activity) of the units.
- 3.4 The sample method should generate the necessary sample size per industry to conduct statistically robust analyses with a confidence level of 95% and a margin error of 5%. As specific criteria for calculating the sample, using a mixed method it is recommended that: (i) the following economic activities are included according to International Standard Industrial Classification, ISIC Revision 4, sections C, D, E, F, G, H, I, J, K, R (see table below) each stratum representative at two digits; (ii) forced inclusion of large firms per stratum; (iii) a maximum 30% of the sample frame has to consist of a panel set from previous surveys (CES, PROTEqIN); (iv) efforts should be made to include the Compete Caribbean beneficiaries as part of the firms to be surveyed; (v) efforts should be made to include a representative sample of the following emerging sectors: business process outsourcing and renewable energy, as they are very relevant sectors in the Caribbean and efforts should be made to create a consolidated file will all the datasets (LACES, PROTEQUIN, FINGEN, etc.) in a format appropriate for statistical analysis of panel date..
- 3.5 Business surveys are commonly based on repeated cross-sections, where a new random sample is drawn from a given population for each survey. Cross-sectional innovation surveys can be supplemented by a panel that samples a subset of units over two or more iterations of the survey, using a core set of identical questions. Panel samples need to be updated on a regular base to adjust for panel mortality (closure of units, units moving out of the target population, and respondent fatigue). Sample updating should follow the same stratification procedure as the original panel sample.

	SECTION	Division	Description
Industries recommended for inclusion for international comparisons B		05–09	Mining and
C		10 22	quarrying
C D		10–33 35	Manufacturing Electricity, gas,
		33	steam and air conditioning supply
E		36–39	Water supply; sewerage, waste management and remediation activities
F		41–43	Construction
G		45–47	Wholesale and retail trade; repair of motor vehicles and motorcycles
Н		49–53	Transportation and storage
J		58–63	Information and communication
K		64–66	Financial and insurance activities
L		68	Real estate activities
M		69–75	Professional, scientific and technical activities
Supplementary industries for national data collections			
A		01–03	Agriculture, forestry and fishing
1		55–56	Accommodation and food service activities
N		77–82	Administrative and support service activities
Industries not recommended for data collection		95–96	Repair activities, other personal service activities

0	84	Public administration and defence; compulsory social security
P	85	Education
Q	86–88	Human health and social work activities
R	90–93	Arts, entertainment and recreation
S	94	Membership organisations
Т	97–98	Activities of households as employers; activities of households for own use
U	99	Activities of extraterritorial organisations and bodies

Source: ISIC Revision 4, United Nations, 2008. ISIC economic activities (industries) for inclusion in international comparisons of business innovation.

3.6 The standardized definition used for size stratification will be: small (5 to 19 employees), medium (20 to 99 employees), and large (more than 99 employees). Only formal firms with five or more employees will be included in the sample.

## **Survey Scope and Country Coverage**

- 3.7 The Consultant shall collect data from a statistically representative sample of enterprises from among the 13 included countries (Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Trinidad and Tobago, and Suriname), on: business performance, innovation activities and outcomes, use of technology, management practices, gender in the workplace, and business environment, as well as basic firm data. The consultant, in the proposal, shall propose improvements or refinement, if required, based on new technological and methodological advances for data collection.
- 3.8 Based on the new methodology proposed by the consultant, the survey sample representative of the whole economy shall be stratified by industry and size, allowing for comparison between sectors and firm size in each country.
- 3.9 The Consultant will report the design weights and the ex-post weights adjusted by non-eligibility in the sample frame and include them in the final data set.
- 3.10 Observation period: 2015-2017

#### IV. IMPLEMENTATION

4.1 The questionnaire and sample design and the implementation of the survey should follow the guidelines from the Oslo Manual (chapter X) and the best practices, as well as the manual for the implementation of innovation surveys published by IDB <sup>3</sup>. The IFPG will be carried out by the selected consulting firm by means of face-to-face interviews with each establishment's senior managers. The questionnaires should be designed to seek opinions and information from the establishment's senior manager, accountant, and/or human resource manager. The design shall include questions to solicit information about firm performance, innovation practices, technology use, gender involvement in the business, and management practices, as well as managers' opinions on different aspects of the business environment. Other portions of the questionnaire will solicit information that is to be taken from the establishment's financial statements. If applicable, the consultant shall also introduce new technologies for data collection that promote survey participation

# A. The Questionnaire

4.2 The consultant will review the CES 2011, PROTEqIN 2013-2014, and the survey instruments applied by different Latin American countries, as well as the Oslo Manual, to propose the IFPG survey instrument. The survey instrument should allow research on the following questions: a) assessment of performance of Caribbean firms; b) determinants of performance and of productivity in the Caribbean; c) innovation behavior and obstacles of Caribbean enterprises; d) technology use among businesses in the Caribbean; e) differences in firm productivity and performance according to gender of ownership and/or management; f) management practices; g) business environment.

### V. ACTIVITIES

## B. The consulting firm:

- a. Will propose the methodology for sampling and the parameters for the sample frames, looking for a representative sample of the economy. As part of this, it should engage in consultations with the relevant stakeholders in each country, especially with the National Statistical Offices (NSOs) in order to assess availability of administrative records and business registries and other potential sources of relevant information.
- b. Will draw samples consistent with the sample methodology proposed. The samples must be approved by the IDB/Compete Caribbean Team before being issued.
- c. Will design the questionnaire according to the guidelines provided by the IDB/Compete Caribbean Team. The questionnaire must be approved by the IDB/Compete Caribbean Team before data collection can start.
- d. Will train its enumerators on applying the questionnaire.
- e. Will pilot the questionnaire on 5 companies in each country prior to launch of the IFPG survey in that country.

https://publications.iadb.org/handle/11319/5693 and https://publications.iadb.org/handle/11319/6638

- f. Will confirm with the IDB/Compete Caribbean Team any necessary or suggested changes on the questionnaire based on the results of piloting the survey in each country.
- g. Will provide for a Dutch translation of the questionnaire, including the variable names used for data entry into the questionnaire that corresponds to the appropriate question, prior to launching the survey in Suriname.
- h. Will provide for translation into English of the data/information collected utilizing the Dutch questionnaire in Suriname.
- i. Will complete the survey using face-to-face interviews in each of the 13 countries.
- j. Will provide weekly Progress Reports for each country that include response rates, differentiating between refusals and problems with the sample frame, in a format approved by the IDB/Compete Caribbean Team.
- k. Will enter the data into an electronic database, designed by the consultant, using a method/software approved by the IDB/Compete Caribbean Team that automatically restricts out-of-range variables, checks for inconsistencies, does not allow missing fields where they are not appropriate, and ensures the accuracy of the entered data.
- I. Will recode open ended questions as per instructions provided by the IDB/Compete Caribbean Team.
- m. Will verify and clean the data after data entry, when inconsistencies or outliers are found.

## VI. EXPECTED OUTCOMES AND DELIVERABLES

## 6.1 The consultant will deliver:

- a. The sample frame for each country, approved by the IDB/Compete Caribbean Team.
- b. The final questionnaire approved by the IDB/Compete Caribbean Team.
- c. A clean, labeled database of completed IFPG interviews in STATA, SPSS, R or other compatible data processing application, previously agreed upon with the IDB/Compete Caribbean Team. The database will contain all variables included in the questionnaire, following the codes included in the attachments. Furthermore, it will include weights, projection factors and any other data necessary to conduct quantified tabulation. Each establishment should have a unique numeric identifier. For the panel data set, each establishment's unique numeric identifier should be the same as from the previous LACES and FINGEN and PROTEqIN 2013, if applicable, so that a longitudinal data set can be easily identified and maintained.
- d. Will provide the IDB/Compete Caribbean Team a second database including the location information of each interviewed establishment: name, address, phone number, fax number, email/web address, name of the person interviewed, his/her position title in the establishment and the GPS coordinates of the establishment. Each establishment's location information will have a unique alpha code identifier, so that the list of contacts can be matched 1-to-1 with the STATA, SPSS, R or other compatible data processing application in electronic database format in order to pursue future rounds of panel interviews.

- e. For the panel data set, will provide the IDB/Compete Caribbean Team a full report, firm-by-firm, of the full sample of firms interviewed, indicating changes to the establishment since the last round of interviews.
- f. Will provide a brief report on the call-backs performed for quality verification purposes (as mentioned earlier, at least ten percent (10%) of the completed interviews should be verified).
- g. Will provide the IDB/Compete Caribbean Team a key relating each unique numeric code from the data set of the interviews with the alpha code from the location data set. This will protect the anonymity of the respondents.
- h. Will prepare a report, in English, on the data collected, describing all codes, sampling frame, sampling biases introduced in the survey implementation and other pertinent information for researchers. The report will cover observations/experiences arising from the survey and the methodology employed, as well as lessons learned. Any data removed in the "cleaning" process other than through clarification with the responding establishment will also be reported.
- i. Include a consolidated file with all the datasets (LACES, PROTEQIN, FINGEN, etc) in a format appropriate for statistical analysis for panel data
- j. Include in the cleaned database a variable that contains the firm IDs of panel data set respondents from previous rounds of CES, FINGEN or PROTEqIN surveys. This ID should be exactly the same as the one used in these surveys and should allow merging the data with the data from these previous surveys, for those fields with identical questions.

## VII. CONFIDENTIALITY AND DATA OWNERSHIP

7.1 The consultant will protect the confidentiality of firms and individuals participating in the survey at all stages. All data is confidential and the property of the IDB. Its sole purpose is for research on the variables that affect firm performance, including the business environment, and is not for commercial use. No data or other information from this survey will be released to third parties without the written approval of the IDB. The consultant will turn over all data, questionnaire and other material to the IDB and will not retain any information or material after the survey data collection has ended.

#### VIII. PROJECT SCHEDULE AND MILESTONES

- 8.1 The timeline of the assignment follows.
- 8.2 With a commencement of the work on August 1, 2018, development of the sample frame is expected to start in the same month. The implementing consultant is expected to provide the completed database and all other deliverables including final report to the IDB/Compete Caribbean Team by 3rd quarter 2019, per the schedule below<sup>4</sup>:

Methodological Approach	[4 <sup>th</sup> month]
Training, Piloting, Questionnaire revision	[6 <sup>th</sup> month]
Application of Main Survey	[9 <sup>th</sup> month]

<sup>&</sup>lt;sup>4</sup> The consultant shall provide a detailed timeline in the proposal.

10% Data Delivered	[10 <sup>th</sup> month]
50% Data Delivered	[11 <sup>th</sup> month]
Data entry finalized and final data delivered	[12 <sup>th</sup> month]

- 8.3 If due to problems encountered during survey fieldwork these deadlines cannot be met, a revision of this time schedule will take place between the IDB/Compete Caribbean Team and the Consultant.
- 8.4 Any delay in the schedule caused by the IDB/Compete Caribbean Team will result in an equal delay of all dates described above.

#### IX. QUALIFICATIONS OF THE FIRM AND PROJECT TEAM

- 9.1 The firm must be able to show relevant experience in:
  - a. Proven experience in designing and implementing sample frame methodology, including determining sample frames, and in using data processing and data mining techniques. Experience using new technological advances such as 4<sup>th</sup> Generation technology to improve the speed and precision of building sample frames will be considered an asset.
  - b. Successfully carrying out surveys with similar scope and objectives.
  - c. Previous knowledge of the countries of the Caribbean region will be considered an asset.
- 9.2 The project team will include a Project Director, statistician, data scientist project supervisor for field work, and enumerators for each country covered. The expected qualifications of the Project Director are:
  - a. Academic Degree / Level & Years of Professional Work Experience: Advanced degree in Economics, or Statistics.
  - b. At least 15 years of relevant experience in designing sample frames, survey instruments and collecting statistical data for quantitative analysis.
  - c. In-depth knowledge and understanding of micro-level data collection techniques, innovation at the firm level, business processes, and the likes.
  - d. Proven work directing surveys at international, national and local levels (please submit reference letters of previously completed work). Previous experience and indepth knowledge of the Caribbean countries will be considered an asset.
  - e. Experience with collecting large amounts of data in formats to be used by data analysts (please submit reference letters of previously completed work).

# **Sub-Contracting**

9.3 Bidders intending to sub-contract local firms for the collection of data must present the names and references of the proposed sub-consultants. The IDB/Compete Caribbean Team reserves the right to approve of each sub-consultant. Bidders are encouraged to include sufficient information on the sub-consultants for the selection committee to decide on their ability to carry out the survey. Any change of the sub-consultants requires prior approval of the IDB/Compete Caribbean Team.

## X. PAYMENT SCHEDULE

10.1 An initial payment of twenty five percent (25%) of the total contract value will be made at the outset of the work. A second payment of twenty percent (20%) will be made upon receipt of the first ten percent (10%) of data. A third payment of twenty percent (20%) of the contract value will be paid upon receipt and approval of the fifty percent (50%) of the enterprise data and fifty percent (50%) of the survey data. A final payment covering the balance of the contract value, thirty five percent (35%), will be made upon receipt and approval by the Team Leader of the final clean data, final implementation report and all other required deliverables. If a delay is encountered in the delivery of data from any given country, payment will be made according to the above schedule, proportionate to the number of countries for which data is received and approved.

# XI. SUPERVISION AND REPORTING

11.1 The supervision will be carried out by Claudia Stevenson (IFD/CTI), in coordination with CCB and the Compete Caribbean Team.

#### **REGIONAL**

#### IFD/CTI

#### **RG-T3163**

Consultancy for Designing and Implementing Innovation Performance and Gender (IFPG) Issues in Enterprises in the Caribbean 2018 Survey

#### **TERMS OF REFERENCE**

### Field Monitoring and Supervision of Survey

### **Background**

Established in 1959, the Inter-American Development Bank ("IDB" or "Bank") is the main source of financing for economic, social and institutional development in Latin America and the Caribbean. It provides loans, grants, guarantees, policy advice and technical assistance to the public and private sectors of its borrowing countries.

On March 20, 2016, the IDB Board approved the creation of the Compete Caribbean Partnership Facility (CCPF) as a multi-donor Trust Fund jointly funded by the United Kingdom's Department for International Development (DFID), the Caribbean Development Bank (CDB), and the Government of Canada. The ultimate goal of the Compete Caribbean Partnership Facility is to support the Caribbean region in increasing productivity and Caribbean firms' contribution to economic growth. The specific objectives are to (i) support firms to grow, innovate and enter new sectors and markets; and (ii) to promote an environment that enables innovation and growth. The Facility will support productivity and economic growth in the Caribbean by focusing on two thematic pillars: (i) productivity and innovation in firms; and (ii) enhancing the business and innovation climate. One cross cutting issue relates to applied knowledge, under which this activity is framed. The Facility is executed by Inter-American Development Bank and all procedures related to operations and implementation thereof must comply with IDB policies.

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labor management practices, and using a sample framework comprising a panel of 96% of firms extracted from CES 2011.

As part of the activities envisioned in the second phase of the Compete Caribbean Program, a third round of business surveys focusing on Innovation, Performance and Gender (IFPG) is envisioned which focuses on the innovative behavior of Caribbean businesses, and is aligned with innovation surveys routinely carried out by statistical offices in Latin America, and the recent developments and methodological recommendations from by the Oslo Manual (OECD, Eurostat). This new exercise requires a new sample framework of enterprises that is representative of the current Caribbean economy, given that the last sample framework developed in 2011 for CES that was used again for PROTEqIN is no longer representative. This new exercise is also interested in encouraging the use of recent technological developments (machine learning, pattern recognition, data mining, visualization, etc.) that allow for the use and analysis of Big Data in developing the sample framework or in complementing data collected. In addition, the topic of gender in private sector in the Caribbean will be more widely addressed than in previous surveys, in alignment with the stronger gender focus of the second phase of the Caribbean program

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In addition, the Competitiveness, Innovation and Technology Division of the IDB has been building the Latin American innovation surveys (LAIS) dataset, that is a harmonized and anonymized dataset of cross sectional data at the firm level, covering 10 countries over the period 2004-2016, including around 700 variables across 12 themes to describe innovation in Latin American firms (not covering the Caribbean). The methodology for harmonization includes the construction of variables (quantitative and qualitative) and the selection of variables according to two criteria: (i) optimize coverage at the survey level: Include variables common to all surveys; (ii) optimize coverage at the level of the questionnaire: Include variables that are common to many of the surveys. The consultant shall take into account these complementary activities and aim at: 1) coordination with the PRASC and the National Statistical Offices to incorporate lessons learned from their development of business registries and data collection exercises (i.e. non-response rates, etc.); 2) producing a survey instrument whose data can be harmonized with the LAIS.

# Consultancy objective(s)

The objective of the consultancy to monitor and supervise data externally collected under Component 1.

#### Main activities

The contractual will carry out the following key activities that will facilitate the achievement of the objective:

- Liaise with Compete Caribbean staff and hired consulting firm to understand the survey methodology, data collection procedures, enumerator training and selection processes, field plan, and intended survey outcomes. Review key project documents and reports.
- Develop a short version of the survey to be administered to a small subset (approximately 10%) of respondents. Ensure to repeat key questions that may lead to skip codes.
- Develop a methodology for randomly selecting approximately 10% of surveyed firms to verify that interviews took place as claimed.
- Submit a workplan which includes the anonymized list of firms to be targeted, a strategy for targeting these randomly selected firms, a strategy for addressing discrepancies (if any), a and timeline for completion of the consulting objectives.
- Reach out to these randomly selected firms to verify their submission of data to the consulting firm.
- Submit a progress report and then a final report which documents response rates, identifies
  any discrepancies, proposes a strategy for addressing discrepancies, and provides
  monitoring feedback on the work of the consulting firm.

## Reports / Deliverables

- 1. The expected outcomes and products under this assignment are the following:
  - i. Methodology for random sample selection and work plan with strategy and timelines for targeting selected firms.
  - ii. Progress Report 1
  - iii. Final Report

# **Payment Schedule**

Payment terms will be based on the Bank's acceptance of project deliverables submitted. The Bank does not expect to make advance payments under consulting contracts unless a significant amount of travel is required.

Payment Schedule		
Deliverable	%	
1. Work Plan (Deliverable 1)	20%	
2. Progress Report (Deliverable 2)	30%	
3. Final Report (Deliverable 3)	50%	
TOTAL	100%	

#### Qualifications

Academic Degree / Level & Years of Professional Work Experience:

- Minimum of Bachelor's degree in International Relations, Economics, Communications or any other related field.
- At least five (5) years' experience in survey design, data collection and survey field monitoring with strong preference for data collection in the Caribbean

### Languages:

Fluency in oral and written English.

# Areas of Expertise:

- Expertise in survey data collection
- Understanding of econometric techniques.
- Experience in private sector development with a focus on business and innovation climate reform within a developing country context including the Caribbean.

## Skills:

- Highly developed communication and report writing skills
- The ability to work independently and manage multiple tasks effectively. Excellent
  written and oral communication skills are required, including the ability to synthesize key
  issues and draw lessons learned.

# **Characteristics of the Consultancy**

- Consultancy category and modality: Products and External Services Contractual, Lump Sum
- Contract duration: 10 working days over 2 months
- Place(s) of work: External
- Division Leader or Coordinator: Claudia Stevenson, Team Leader (IFD/CTI).

**Payment and Conditions:** Compensation will be determined in accordance with Bank's policies and procedures. In addition, candidates must be citizens of an IDB member country.

**Consanguinity:** Pursuant to applicable Bank policy, candidates with relatives (including the fourth degree of consanguinity and the second degree of affinity, including spouse) working for the Bank as staff members or Complementary Workforce contractuals, will not be eligible to provide services for the Bank.

**Diversity:** The Bank is committed to diversity and inclusion and to providing equal opportunities to all candidates. We embrace diversity on the basis of gender, age, education, national origin, ethnic origin, race, disability, sexual orientation, religion, and HIV/AIDs status. We encourage women, Afro-descendants and persons of indigenous origins to apply.

#### **REGIONAL**

#### IFD/CTI

#### **RG-T3163**

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#### **TERMS OF REFERENCE**

# **Campaign Strategy**

### **Background**

Established in 1959, the Inter-American Development Bank ("IDB" or "Bank") is the main source of financing for economic, social and institutional development in Latin America and the Caribbean. It provides loans, grants, guarantees, policy advice and technical assistance to the public and private sectors of its borrowing countries.

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Phase 1 of Compete Caribbean (2010-17) supported the creation of 12,000 jobs (80% for women and youth); increased revenue generated by participating firms and clusters (USD\$153m or a 41% increase); increased exports by participating firms and clusters (USD\$37m or a 23% increase); and contributed to improvements in the business environment in several Caribbean countries (e.g.: Jamaica's ranking for Access to Finance improved its position to 12 from 189).

The Caribbean Enterprise and Indicator Survey 2011 (CES 2011) was funded by Phase I of Compete Caribbean and carried out as part of the World Bank's Latin American and Caribbean Enterprise Survey (LACES). During 2013 – 2014 Phase I of Compete Caribbean funded the Productivity, Technology, and Innovation (PROTEqIN) survey as an update of the 2011 exercise, keeping the same core questions and including modules on innovation behavior and

labor management practices, and using a sample framework comprising a panel of 96% of firms extracted from CES 2011.

As part of the activities envisioned in the second phase of the Compete Caribbean Program, a third round of business surveys focusing on Innovation, Performance and Gender (IFPG) is envisioned which focuses on the innovative behavior of Caribbean businesses, and is aligned with innovation surveys routinely carried out by statistical offices in Latin America, and the recent developments and methodological recommendations from by the Oslo Manual (OECD, Eurostat). This new exercise requires a new sample framework of enterprises that is representative of the current Caribbean economy, given that the last sample framework developed in 2011 for CES that was used again for PROTEqIN is no longer representative. This new exercise is also interested in encouraging the use of recent technological developments (machine learning, pattern recognition, data mining, visualization, etc.) that allow for the use and analysis of Big Data in developing the sample framework or in complementing data collected. In addition, the topic of gender in private sector in the Caribbean will be more widely addressed than in previous surveys, in alignment with the stronger gender focus of the second phase of the Caribbean program

The Bank has a long history working with the Caribbean Community (CARICOM) on technical cooperation projects to improve statistical production on both the national and regional level. Project activities described in the current TC will be coordinated closely with CARICOM and the Project for the Regional Advancement of Statistics in the Caribbean (PRASC). PRASC is an initiative implemented by Statistics Canada whose direct beneficiaries are the National Statistical Offices, National Statistical Systems and the Regional Statistical System of the Caribbean region. One of the four components of the PRASC focuses on Business Survey Infrastructure, by improving the methodology of business surveys for better economic statistics. Activities are carried out in three phases: knowledge exchange, development and testing, and implementation of the business survey infrastructure at the national level. Lessons learned at the national level are used to establish a foundation for regional guidelines for the development and maintenance of statistical business registers.

In addition, the Competitiveness, Innovation and Technology Division of the IDB has been building the Latin American innovation surveys (LAIS) dataset, that is a harmonized and anonymized dataset of cross sectional data at the firm level, covering 10 countries over the period 2004-2016, including around 700 variables across 12 themes to describe innovation in Latin American firms (not covering the Caribbean). The methodology for harmonization includes the construction of variables (quantitative and qualitative) and the selection of variables according to two criteria: (i) optimize coverage at the survey level: Include variables common to all surveys; (ii) optimize coverage at the level of the questionnaire: Include variables that are common to many of the surveys. The consultant shall take into account these complementary activities and aim at: 1) coordination with the PRASC and the National Statistical Offices to incorporate lessons learned from their development of business registries and data collection exercises (i.e. non-response rates, etc.); 2) producing a survey instrument whose data can be harmonized with the LAIS.

In this regard, is important to create a platform of stakeholders, including National Statistical Agencies, business registries among others, to share lessons learned and best practices. As part of the engagement effort, awareness and dissemination campaigns have to be designed.

## Consultancy objective(s)

The consultant is expected to the preparation of a Campaign Strategy that raises awareness of the key benefits of the project's efforts and promote advocacy and support across a wide audience.

#### Main activities

The contractual will carry out the following key activities that will facilitate the achievement of the objective:

- Conduct a desk review of relevant project documents. Hold consultative meetings and interviews with NSOs, Business Registries, and other stakeholders seeking to increase the visibility of the NSO and their capacity and to understand priorities, needs, and concerns relating to the project.
- Devise a campaign strategy that includes the following elements:
  - Clear objectives of the strategy
  - Audience matrix which identifies key stakeholders with an interest in the survey data, strategies for targeting the audience, and indicators of success. Messages and approaches will need to be tailored for different stakeholders and through different dissemination mechanisms. It is expected that the campaign addresses this.
  - Pre-crafted messages and approaches for identified stakeholders
  - Guidelines
- Undertake advocacy actions toward increasing awareness and responses from data collection
- Using advanced visualization methods, develop awareness materials such as infographic designs and online data visualization graphics.
- Use an array of communication channels, such blogs written for newsletters, targeted emails, and social media, to communicate to a regional audience.
- o Organize and facilitate capacity building workshops to share data collection tools such as response trackers, collection techniques, follow-up techniques, anonymization and the like.

#### Reports / Deliverables

The expected outcomes and products under this assignment are the following:

- i. A work plan with proposed activities and timeline, within 5 calendar days of contract signing;
- ii. A draft strategy and action plan within 20 calendar days after approval of the draft work plan;
- iii. First set disseminated visualizations
- iv. Second set of disseminated visualizations
- v. Successful execution of two capacity building workshops

## **Payment Schedule**

Payment terms will be based on the Bank's acceptance of project deliverables submitted. The Bank does not expect to make advance payments under consulting contracts unless a significant amount of travel is required.

Payment Schedule	
Deliverable	%
Work Plan (Deliverable 1)	10%
Draft Campaign Strategy (Deliverable 2)	30%
First set of disseminated visualizations (Deliverable 3)	20%
Second set of disseminated visualizations (Deliverable 4)	20%
5. Execution of Capacity Building workshops (Deliverable 5)	20%
TO	<b>TAL</b> 100%

## Qualifications

Academic Degree / Level & Years of Professional Work Experience:

- Minimum of Bachelor's degree in International Relations, Economics, Communications or any other related field.
- At least two (2) years' experience in public relations and communications.

## Languages:

Fluency in oral and written English.

## Areas of Expertise:

- Expertise in survey data analysis and visualization techniques.
- Expertise in coordinating graphic design, illustration, digital design, and production of videos.
- Understanding of Caribbean as evidenced by previous assignments
- Extensive work experience and proven record in advocacy, policy, campaign, and strategic management
- Experience in private sector development with a focus on business and innovation climate reform within a developing country context including the Caribbean.

## Skills:

- Highly developed communication and report writing skills as evidenced by visualizations, presentations and publicly available reports, blogs, articles, and/or academic pieces.
- A working understanding of guidelines and procedures typically used by development banks
- The ability to work independently and manage multiple tasks effectively. Excellent written and oral communication skills are required, including the ability to synthesize key issues and draw lessons learned.

## **Characteristics of the Consultancy**

- Consultancy category and modality: Products and External Services Contractual, Lump Sum
- 2. Contract duration: 4 months
- 3. Place(s) of work: External

4. Division Leader or Coordinator: Claudia Stevenson, Team Leader (IFD/CTI).

**Payment and Conditions:** Compensation will be determined in accordance with Bank's policies and procedures. In addition, candidates must be citizens of an IDB member country.

**Consanguinity:** Pursuant to applicable Bank policy, candidates with relatives (including the fourth degree of consanguinity and the second degree of affinity, including spouse) working for the Bank as staff members or Complementary Workforce contractuals, will not be eligible to provide services for the Bank.

**Diversity:** The Bank is committed to diversity and inclusion and to providing equal opportunities to all candidates. We embrace diversity on the basis of gender, age, education, national origin, ethnic origin, race, disability, sexual orientation, religion, and HIV/AIDs status. We encourage women, Afro-descendants and persons of indigenous origins to apply.

#### REGIONAL

#### IFD/CTI

#### **RG-T3163**

Consultancy for Designing and Implementing Innovation Firm Performance and Gender (IFPG) Issues in Enterprises in the Caribbean 2018 Survey

## **TERMS OF REFERENCE**

## **Policy Briefs**

#### Background

Established in 1959, the Inter-American Development Bank ("IDB" or "Bank") is the main source of financing for economic, social and institutional development in Latin America and the Caribbean. It provides loans, grants, guarantees, policy advice and technical assistance to the public and private sectors of its borrowing countries.

On March 20, 2016, the IDB Board approved the creation of the Compete Caribbean Partnership Facility (CCPF) as a multi-donor Trust Fund jointly funded by the United Kingdom's Department for International Development (DFID), the Caribbean Development Bank (CDB), and the Government of Canada. The ultimate goal of the Compete Caribbean Partnership Facility is to support the Caribbean region in increasing productivity and Caribbean firms' contribution to economic growth. The specific objectives are to (i) support firms to grow, innovate and enter new sectors and markets; and (ii) to promote an environment that enables innovation and growth. The Facility will support productivity and economic growth in the Caribbean by focusing on two thematic pillars: (i) productivity and innovation in firms; and (ii) enhancing the business and innovation climate. One cross cutting issue relates to applied

knowledge, under which this activity is framed. The Facility is executed by Inter-American Development Bank and all procedures related to operations and implementation thereof must comply with IDB policies.

Phase 1 of Compete Caribbean (2010-17) supported the creation of 12,000 jobs (80% for women and youth); increased revenue generated by participating firms and clusters (USD\$153m or a 41% increase); increased exports by participating firms and clusters (USD\$37m or a 23% increase); and contributed to improvements in the business environment in several Caribbean countries (e.g.: Jamaica's ranking for Access to Finance improved its position to 12 from 189).

The Caribbean Enterprise and Indicator Survey 2011 (CES 2011) was funded by Phase I of Compete Caribbean and carried out as part of the World Bank's Latin American and Caribbean Enterprise Survey (LACES). During 2013 – 2014 Phase I of Compete Caribbean funded the Productivity, Technology, and Innovation (PROTEqIN) survey as an update of the 2011 exercise, keeping the same core questions and including modules on innovation behavior and labor management practices, and using a sample framework comprising a panel of 96% of firms extracted from CES 2011.

As part of the activities envisioned in the second phase of the Compete Caribbean Program, a third round of business surveys focusing on Innovation, Performance and Gender (IFPG) is envisioned which focuses on the innovative behavior of Caribbean businesses, and is aligned with innovation surveys routinely carried out by statistical offices in Latin America, and the recent developments and methodological recommendations from by the Oslo Manual (OECD, Eurostat). This new exercise requires a new sample framework of enterprises that is representative of the current Caribbean economy, given that the last sample framework developed in 2011 for CES that was used again for PROTEqIN is no longer representative. This new exercise is also interested in encouraging the use of recent technological developments (machine learning, pattern recognition, data mining, visualization, etc.) that allow for the use and analysis of Big Data in developing the sample framework or in complementing data collected. In addition, the topic of gender in private sector in the Caribbean will be more widely addressed than in previous surveys, in alignment with the stronger gender focus of the second phase of the Caribbean program

The Bank has a long history working with the Caribbean Community (CARICOM) on technical cooperation projects to improve statistical production on both the national and regional level. Project activities described in the current TC will be coordinated closely with CARICOM and the Project for the Regional Advancement of Statistics in the Caribbean (PRASC). PRASC is an initiative implemented by Statistics Canada whose direct beneficiaries are the National Statistical Offices, National Statistical Systems and the Regional Statistical System of the Caribbean region. One of the four components of the PRASC focuses on Business Survey Infrastructure, by improving the methodology of business surveys for better economic statistics. Activities are carried out in three phases: knowledge exchange, development and testing, and implementation of the business survey infrastructure at the national level. Lessons learned at

the national level are used to establish a foundation for regional guidelines for the development and maintenance of statistical business registers.

In addition, the Competitiveness, Innovation and Technology Division of the IDB has been building the Latin American innovation surveys (LAIS) dataset, that is a harmonized and anonymized dataset of cross sectional data at the firm level, covering 10 countries over the period 2004-2016, including around 700 variables across 12 themes to describe innovation in Latin American firms (not covering the Caribbean). The methodology for harmonization includes the construction of variables (quantitative and qualitative) and the selection of variables according to two criteria: (i) optimize coverage at the survey level: Include variables common to all surveys; (ii) optimize coverage at the level of the questionnaire: Include variables that are common to many of the surveys. The consultant shall take into account these complementary activities and aim at: 1) coordination with the PRASC and the National Statistical Offices to incorporate lessons learned from their development of business registries and data collection exercises (i.e. non-response rates, etc.); 2) producing a survey instrument whose data can be harmonized with the LAIS.

In this regard, the TC contemplates the use of the surveyed data from IFPG to develop Policy Briefs for at least seven countries in order to provide the countries with a relevant tool for the practical use of the information.

# Consultancy objective(s)

The consultant is expected to deliver Policy Briefs based on the results of the IFPG Survey/.

## Main activities

The contractual will carry out the following key activities that will facilitate the achievement of the objective:

- i) Conduct a desk review of relevant project documents.
- ii) Carry out an analysis of the Data collected
- **iii)** Provide Policy Briefs for at least seven countries in the Caribbean and a Regional Policy Brief that summarizes the main finding of the activities.
- iv) Use advanced visualization methods, including data visualization and graph analysis to convey a powerful message for stakeholders and decision makers.

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## Reports / Deliverables

The expected outcomes and products under this assignment are the following:

- a) A work plan with proposed activities and timeline, within 5 calendar days of contract signing;
- b) First draft of the 7 Policy Briefs
- c) Final version of 7 policy briefs which incorporates comments

# **Payment Schedule**

Payment terms will be based on the Bank's acceptance of project deliverables submitted. The Bank does not expect to make advance payments under consulting contracts unless a significant amount of travel is required.

Payment Schedule	
Deliverable	%
Work Plan (Deliverable 1)	10%
Draft Policy Briefs (Deliverable 2)	40%
3. Final Policy Briefs (Deliverable 3)	50%
TOTAL	100%

#### Qualifications

Academic Degree / Level & Years of Professional Work Experience:

- Minimum of Bachelor's degree in International Relations, Economics, Communications or any other related field.
- At least two (2) years' experience in public relations and communications.

## Languages:

Fluency in oral and written English.

# Areas of Expertise:

- Experience in private sector development with a focus on business and innovation climate reform within a developing country context including the Caribbean.
- Expertise in survey data analysis and visualization techniques.
- Expertise in coordinating graphic design, illustration, digital design, and production of videos.

# Skills:

- Highly developed communication and report writing skills as evidenced by visualizations, presentations and publicly available reports, blogs, articles, and/or academic pieces.
- A working understanding of guidelines and procedures typically used by development banks
- The ability to work independently and manage multiple tasks effectively. Excellent
  written and oral communication skills are required, including the ability to synthesize key
  issues and draw lessons learned.

# **Characteristics of the Consultancy**

Consultancy category and modality: Products and External Services Contractual, Lump Sum

Contract duration: 4 months

Place(s) of work: External

Division Leader or Coordinator: Claudia Stevenson, Team Leader (IFD/CTI).

**Payment and Conditions:** Compensation will be determined in accordance with Bank's policies and procedures. In addition, candidates must be citizens of an IDB member country.

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#### **REGIONAL**

#### IFD/CTI

#### **RG-T3163**

Consultancy for Designing and Implementing Innovation Performance and Gender (IFPG) Issues in Enterprises in the Caribbean 2018 Survey

#### **TERMS OF REFERENCE**

#### Research Work - Technical Note

## **Background**

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In addition, the Competitiveness, Innovation and Technology Division of the IDB has been building the Latin American innovation surveys (LAIS) dataset, that is a harmonized and anonymized dataset of cross sectional data at the firm level, covering 10 countries over the period 2004-2016, including around 700 variables across 12 themes to describe innovation in Latin American firms (not covering the Caribbean). The methodology for harmonization includes the construction of variables (quantitative and qualitative) and the selection of variables according to two criteria: (i) optimize coverage at the survey level: Include variables common to all surveys; (ii) optimize coverage at the level of the questionnaire: Include variables that are common to many of the surveys. The consultant shall take into account these complementary activities and aim at: 1) coordination with the PRASC and the National Statistical Offices to incorporate lessons learned from their development of business registries and data collection exercises (i.e. non-response rates, etc.); 2) producing a survey instrument whose data can be harmonized with the LAIS.

In this regard, is important to disseminate evidence based research from the survey that will aid decision makers in the region.

# Consultancy objective(s)

The objective of this consultancy is to develop a high quality, publishable analytical piece that utilizes firm level data to explore relationships between innovation, productivity, and growth in Caribbean firms with a particular focus on gender issues.

#### Main activities

The contractual will carry out the following key activities that will facilitate the achievement of the objective:

- Conducting research in order to produce an analytical piece on the relationship between productivity, innovation, and growth from a firm level perspective
- Participation in an inception workshop to provide strategic guidance on research work
- Submission of a final draft for peer reviewing and commenting
- Presentation of final draft

## Reports / Deliverables

The expected outcomes and products under this assignment are the following:

- 1. 1st Deliverable: No later than 15 calendar days prior to the start of the first workshop:
  - A proposal with detailed chapter outline including abstract posing a clear research question that presents a sound justification of why the proposed study is relevant to the Caribbean and why the country/countries selected for the study are appropriate if a restricted sample is going to be used.
  - A description and justification of the proposed methodology should also be included.
  - Description of the data that the authors have at their disposal to be used in the study, making explicit reference to the IFPG survey. The author(s) will be expected to demonstrate in-depth knowledge of the variables and architecture of the databases that are being used.
  - A five minute PPT presentation on the above points 1 3 which highlights the research to be conducted, the methodology being used, and any issues to discuss with peers for their input.
  - Updated resume of the consultant and the supporting authors.
- 2. 2nd Deliverable: No later than 15 calendar days prior to the deadline to be determined by Compete Caribbean. This deliverable should include:
  - A working draft of the research paper delivered electronically on both Microsoft Word (.docx) and Portable Document Format (.pdf) formats. This draft will include ideas and suggestions provided to the consultant during the first workshop.
  - The document itself will have to adhere to the following formatting guidelines:
    - The font to be used will be Times New Roman 12 point, black color and white background
    - 1.5 line spacing, justified
    - The cover page will include the Compete Caribbean and donor's logo including a short disclaimer from the IDB. This will be provided by the PCU.

 The donors of the program will be acknowledged with the following text, which will be included in the acknowledgements section of the research paper:

Compete Caribbean is a private sector development program that provides technical assistance grants and investment funding to support productive development policies, business climate reforms, clustering initiatives and Small and Medium Size Enterprise (SME) development activities in the Caribbean region. The program, jointly funded by the Inter-American Development Bank (IDB), Canada, and the United Kingdom Department for International Development (DFID), supports projects in 15 Caribbean countries. Projects in the OECS countries are implemented in partnership with the Caribbean Development Bank.

- 3. 3rd Deliverable: No later than 45 calendar days after the second deliverable and at a time to be determined by Compete Caribbean:
  - A final draft of the research paper delivered electronically on both Microsoft Word (.docx) and Portable Document Format (.pdf) formats. This draft will include ideas and suggestions provided to the consultant during the second workshop. This draft will be reviewed by the PCU. The final draft will be consistent with all of the formatting guidelines specified on 4.2.
  - The final version of the paper will be presented at a workshop #2 at the time and location to be determined by Compete Caribbean.
  - All charts with their corresponding source data will be provided on an Excel file delivered electronically to the PCU along with the final paper.
  - Although not required as part of the submission, authors should keep all econometric coding files as well as datasets readily available for the PCU which may request them for review.

## **Payment Schedule**

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Payment Schedule		
Deliverable	%	
Upon signature of contract	20%	
Submission of Deliverable 2	40%	
Submission and Acceptance of Deliverable 3	40%	
TOTAL	100%	

#### Qualifications

Academic Degree / Level & Years of Professional Work Experience:

• Advanced degree in Economics or a related field. PhD preferable.

#### Languages:

Fluency in oral and written English.

## Areas of Expertise:

- Expertise in survey data analysis and visualization techniques.
- The consultant should have a demonstrated track record of academic research and publishing on topics related to productivity, innovation, and technology.
- Demonstrated expertise in econometric packages.

# Skills:

- Highly developed academic writing skills as evidenced by publications.
- The ability to work independently and manage multiple tasks effectively. Excellent
  written and oral communication skills are required, including the ability to synthesize key
  issues.

# **Characteristics of the Consultancy**

- 1. Consultancy category and modality: Products and External Services Contractual, Lump Sum
- 2. Contract duration: 4 months
- 3. Place(s) of work: The consultant will work form his place of residence with two missions to Barbados. All the costs related to these missions will be included in the contract with the consultant.
- 4. Division Leader or Coordinator: Claudia Stevenson, Team Leader (IFD/CTI).

**Payment and Conditions:** Compensation will be determined in accordance with Bank's policies and procedures. In addition, candidates must be citizens of an IDB member country.

**Consanguinity:** Pursuant to applicable Bank policy, candidates with relatives (including the fourth degree of consanguinity and the second degree of affinity, including spouse) working for the Bank as staff members or Complementary Workforce contractuals, will not be eligible to provide services for the Bank.

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