**Meeting minute – Follow-up meeting related to the Brazil trade paper**

**March 8, 2024**

**Those who attended the meeting:**

Gladys Lopez-Acevedo

Carlos Bezerra de Goes

Gabriel Lara Ibarra

Otavio Conceição

**Summary of the main points**

* Carlos Goes presented the first econometric results using outcomes variables such as average wages and number of formal workers at the microregion-sector-year level
* The analysis includes a disaggregation by gender and workers’ schooling level
* Feedback was provided about the results and Gabriel Lara Ibarra suggested the inclusion of some additional variables to explore the effects of interest on other parts of the wage distribution (i.e., not only the average, but also other statistics referring to quartiles for example)
* The Brazil POV Team then agreed to process RAIS data with the new variables relative to other parts of the wage distribution. More specifically, it was decided that the following variables should be incorporated in a new RAIS data set to be uploaded in the shared folder:
  + Average wage of formal workers in the 1st quartile of the wage distribution in each microregion-sector combination
  + Average wage of formal workers in the 2nd quartile of the wage distribution in each microregion-sector combination
  + Average wage of formal workers in the 3rd quartile of the wage distribution in each microregion-sector combination
  + Average wage of formal workers in the 4th quartile of the wage distribution in each microregion-sector combination
  + Wage threshold of the 25th percentile of the wage distribution in each microregion-sector combination
  + Wage threshold of the median (50th percentile) of the wage distribution in each microregion-sector combination
  + Wage threshold of the 75th percentile of the wage distribution in each microregion-sector combination
* The teams also discussed about the possibility of using Censuses data (1991, 2000 and/or 2010) to explore the impacts of interest also on wages and number of workers in the informal sector (recall that RAIS only refers to the formal sectors). The Brazil POV Team committed to study the possibility of creating the same variables that were used in the RAIS data set but with censuses data
* Otavio Conceição mentioned that IBGE now publishes CEMPRE data, which might refer to both the formal and informal sector at the municipal level and covering the 1996-2021 period. The Brazil POV Team then committed to download, prepare the CEMPRE data to be potentially used in the analysis and upload the file in the shared folder
* Gladys Lopez-Acevedo suggested the preparation of meeting minutes of each follow-up meeting to keep track of the developments of the Brazil trade project. Gabriel suggested the creation of a Word document describing the data sets used in the project, with detailed information about their variables, time coverage and other relevant characteristics
* Gabriel Lara Ibarra informed that the CMU asked the team for a follow-up meeting to get updates on the project developments and that it is planned to take place on March 22nd. He said that the slides prepared by Carlos Goes can serve as a basis for the presentation
* The team also discussed about possible classifications for green jobs/sectors to be used in the paper. Leveraging on recent experience of colleagues in the Bank, Gabriel Lara Ibarra proposed some alternatives for classifying economic sectors into green and non-green ones for a heterogeneity analysis of the paper and highlighted that the literature/experts have no clear guidance so far on how to best come up with a green/non-green classification
* One of the alternatives presented is to use data on GHG emissions by municipality, sector and year in Brazil for the 1970-2021 period, which was recently obtained by the Brazil POV Team through a formal request to SEEG, the main platform in LAC for monitoring GHG emissions. A few weeks ago, Arthur Bragança, a Senior Environmental Economist in the Bank, suggested the team to reach out to SEEG and ask for the data, and as a result they shared the data they have with us.
* The main challenge of pursuing this option of using the GHG emissions to define green/non-green sectors is that the SEEG data uses an ad-hoc classification of economic sectors that apparently does not map immediately to usual classifications of economic activities, such as CNAE in Brazil. In particular, the data has no numeric identifier for the sector’s classification and no documentation about the sectoral classification was made available by SEEG. The RAIS data that has been used so far uses CNAE 1.0 classification at the 5-digit level, which is a very granular one. Moreover, there are several missings in the SEEG data especially for some sectors and old years (i.e., the data is generally available for the period as of 2000)
* In view of these challenges, the Brazil POV Team committed to explore the possibility of using the SEEG-provided emissions data to come up with a data-driven classification for green/non-green sectors

**Next steps**

* The team will continue with the data preparation so as to have new results to be presented in the meeting with the Brazil CMU on March 22nd
* The Brazil POV Team is in charge of preparing RAIS data and exploring the possibility of using Censuses data (1991, 2000 and/or 2010) to complement the analysis. Moreover, it is agreed that the Brazil POV Team will download, prepare and upload a data set with CEMPRE data, as well as the meeting minutes, and also start exploring the SEEG-provided data on GHG emissions to propose a green/non-green sectors classification
* Carlos Goes will work on the econometric analysis of the new variables once the updated data sets are ready and shared in the project’s folder