Research Statement

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My main fields are at the intersection of macroeconomics, public economics, and economic growth. In the coming years, I plan to direct my research agenda on three main areas.

1. Effects of tax policies on aggregate outcomes. In my job market paper Corbellini (2023), I study how tax enforcement affects average firm size and aggregate productivity in an economy characterized by the presence of an informal sector. Using data from Brazil, I find that a stricter tax enforcement that reduces informality from 36% to 30% - the value measured in a weighted average of selected Latin American countries - would result in higher output, total factor productivity (TFP), and average firm size. These gains account for about 28% and 10% of the measured differences in average firm size and TFP.

In the paper, tax enforcement is measured indirectly as a combination of tax rates, tax penalties and probability of detection parameters that match the estimated informality rate. My next objective would be to compare tax enforcement changes to existing empirical studies that directly measure the effects of changes in tax policy on outcomes such as revenues, output, and productivity. Although these studies might refer to countries or periods different from the ones I am analyzing, this exercise would ensure that the implied effects stemming from my model are not widely divergent from the existing estimates.

While my job market paper studies a developing country characterized by a large informal sector, I aim to apply a similar framework to analyze the effects of tax enforcement and tax structure in advanced economies. Research in this area has been limited due to data constraints, with only a few studies focusing on the United States (e.g., Di Nola et al. (2021)). My forthcoming research will concentrate on assessing the aggregate effects of tax enforcement and tax structure in Italy. Compared to similar European countries, Italy stands out due to (i) a higher tax evasion rate, (ii) a larger share of self-employed and micro firms, and (iii) a lower measured TFP. I plan to collect firm-level data on tax audits and compliance rates for different sizes and entities. This approach would allow me to estimate tax enforcement over the entire firm size distribution. However, this

would require an agreement with *Agenzia delle Entrate* (Revenue Agency). In the short term, I can obtain preliminary results by using more aggregated estimates of tax evasion and integrating them with Amadeus/ORBIS data on number of employees and firm ownership status.

2. Firm ownership, management delegation, and TFP. In recent years, I have dedicated significant attention to the effects of firm ownership status and management delegation on TFP. The observed cross-country heterogeneity in market capitalization to GDP suggests differences in the costs associated with becoming a publicly-traded company. Additionally, and partly independently on firms' ownership status, substantial differences in the extent to which owners delegate to outsider managers point out to heterogeneity in the private benefits of control and the costs of delegation. I intend to research the topic from a cross-country perspective: to what extent can differences in private benefits of control and the costs of going public account for variations in output and TFP across countries? To discipline a quantitative model, I plan to employ ORBIS firm-level data, IPUMS data on managerial employment, and estimates of the effects of managerial practices on firm performance. This project relates to recent work by Peter (2021), which studies the effects of equity frictions on output and inequality, and by Akcigit et al. (2021), which focuses on the effects of the limits to delegation in India.

3. Measuring informality and tax evasion. While different measures exhibit high correlation among themselves, there exists little evidence supporting the accuracy of current estimates in reflecting the true values of informal output over GDP. Moreover, approaches like the MIMIC method only assess relative changes in informality, while the absolute values generally depend on base years derived from different methods. Similar concerns arise in relation to existing tax evasion estimates. I plan to construct measures of informality that are based on surveys conducted by national statistics institutes. As of now, these estimates can be collected only for a limited number of countries and years, which complicates the building of a time series including several countries (as in Elgin et al. (2021)). The surveys from which I take data for my job market paper satisfy five essential requirements:

(a) They provide estimates of value added for each surveyed entity.
(b) They provide information about self-employed individuals and businesses that are otherwise difficult to detect.
(c) They contain information about employees who are employed "off-the-book" by formal firms.
(d) Their samples are representative at the national level.
(e) They are conducted by a statistical authority whose reputation induces respondents to report fairly accurately.

I plan to estimate absolute values of informal output over GDP for Brazil in 1997 and 2003 (the years in which the informal economy surveys were implemented). In the future, I intend to perform similar exercises for other countries where data are accessible.

Research approach. As a quantitative macroeconomist, when I conduct research through the lens of a structural model, I generally adhere to the following steps:

1. **Data collection:** Collect data that suggest the existence of a specific relationship between variables.
2. **Theory:** Build a theoretical structural model that is internally coherent and roughly consistent with the observed data.
3. **Theory-data iteration:** Iterate between theory and data to refine the theory and corroborate the relationship between the variables of interest
4. **Moments estimation:** Estimate additional moments - possibly using micro data - to discipline the structural model.
5. **Calibration:** Calibrate the model's parameters to minimize the distance between a selected set of model moments and their empirical counterparts.
6. **Counterfactuals:** Use the estimates to perform counterfactual analysis and policy exercises.
7. **Validation:** Validate the counterfactual experiments by comparing with existing empirical and quantitative studies.

1 References

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