I am writing you to express my interest in applying for the PhD summer internship position at the Bank of Mexico. I am a PhD candidate in the Economics department at the University of Western Ontario, with plans to enter the job market in the forthcoming 2024-2025 academic year. My research interests encompass the intersection of Applied Microeconomics and Industrial Organization with particular focus on their implications for public policy.

During the internship, I plan to work on my Job Market Paper (JMP), “Tax Evasion and Productivity”. In the paper, I study how the fiscal environment generates heterogeneous incentives for firms and the effects of these incentives on firms’ decisions to misreport their activity to the authorities. By misreporting, firms can increase their after-tax profits by reducing their fiscal burden. The fiscal environment also affects firm growth and the firm’s optimization decisions. This is relevant for several reasons. First, it matters from a public policy perspective because tax evasion causes significant tax revenue losses for governments around the globe. Second, the fiscal environment might lead to unoptimal decisions from the firms slowing down the aggregate productivity of a country. Third, tax evasion might significantly bias our estimates of production functions and firm-level productivity.

My JMP focuses in studying tax evasion through cost overreporting by manufacturing firms in developing countries. First, I contribute to the literature by providing a novel empirical strategy to estimate cost overreporting using commonly available firm-level data. This approach allows to address issues associated with identifying cost overreporting in low productivity firms and data availability due to restricted administrative data. Second, I formally show that ignoring cost overreporting leads to downward biased productivity estimates. Lastly, I theoretically demonstrate how to recover productivity in the presence of tax evasion.

My plan is to provide an empirical application of my strategy to identify overreporting in different fiscal settings and evaluate changes in cost overreporting due to changes in fiscal policies. I plan to use firm-level data from Colombia between 1981 and 1991. Colombia is an interesting case because two major fiscal reforms in this period will allow me to show how to evaluate a policy change using the method. To do this aim I plan two proceed in two steps:

1. The first step consists of obtaining robust reduced-form empirical evidence about cost overreporting changes due to a policy reform. In 1986, there was a tax policy reform that increased sales taxes for certain industries in the manufacturing sector while reducing them for others. Sales taxes were only targeted at the manufacturing sector and they varied by industry. Before the reform, some industries were taxed at six percent while others were at fifteen percent. The 1986 reform increased those paying the preferential rate to ten percent, and those paying the high rate were reduced to ten percent.
2. The second step is to obtain estimates of tax evasion and corrected estimates of the production function and productivity at the firm level. In this step I plan to obtain the estimates at the firm level. With the results at hand, I would be able to compare with previous results. This is relevant because it will help us understand better how cost-overreporting affects our measures of productivity at the firm level but also at the aggregate level. It is also relevant from a resource misallocation perspective; this strategy will allow me to calculate the portion of the spread of the productivity distribution that can be explained by mismeasurement.

I look forward to an in-person internship to have the opportunity to interact with the researchers at the DGIE. For additional information on my application or my work, please feel free to contact me or my main advisor, Professor Salvador Navarro snavarr@uwo.ca.