Miguel Blanco Cocho

Ph.D. Candidate in Economics

Department of Economics, European University Institute

Miguel.Blanco@eui.eu | https://miguelblancococho.eu

Research & Teaching Statement September 30, 2025

Research Statement

I am an IO economist with research interests in industries with multi-period pricing and capacity constraints, such as the airline industry. I am also interested in consumer behavior in markets in which they can decide the timing of their purchase decisions. My research studies the design of policy interventions in these type of industries. I study how the presence of these features impacts the equilibrium outcomes under different policy interventions. To answer my research questions, I use a combination of empirical and theoretical methods. I use consumer and firm decision models to predict equilibrium outcomes, to simulate effects of unobserved policy changes and to obtain welfare measures. I use structural IO and reduced-form empirical techniques to evaluate observed effects and to obtain structural parameters which allow me to simulate counterfactual experiments of policy change. In what follows, I first describe the research in my Job Market Paper and my other working papers. I also reflect on my research agenda in the near future.

Ongoing Research on tax and subsidy incidence with intertemporal pricing

Job Market Paper — Welfare Implications of Subsidy Design with Intertemporal Price Discrimination

In my Job Market Paper, I explore the impacts of different subsidy designs on welfare when firms do intertemporal price discrimination. The classical view is that in presence of market power, *ad valorem* subsidies are more costly for the government and generate a larger distortion for every level of output target. I show how intertemporal price discrimination alters the picture, because the interaction of subsidy design and pricing policies varies market shares and government spending.

I answer this question using a combination of theoretical and empirical tools, and using data from the subsidy program to residents in the Canary and the Balearic Islands in the Spanish air travel industry. In this industry, these consumers are entitled to an *ad valorem* price discount over the prices posted by airlines. I first leverage an observed change in the subsidy rate to document a large increase in the total government spending in this subsidy program. Afterwards, I show evidence of how this spending increase is decomposed into a larger share of purchases happening in the final periods before departure, and into higher prices after the increase in the subsidy rate.

I then develop a demand model in which consumers decide whether to purchase an airline ticket and also how long in advance to purchase it. This latter decision margin is crucial for my project because it allows me to predict how the change in subsidy design would impact consumers' self-selection

into buying earlier or buying later. The main trade-off which consumers face when deciding about the timing of their purchases is whether to buy early at a lower price, with high uncertainty about the utility they obtain from buying the good, versus whether to buy late at a high price, but being certain about their desire to purchase the good. I introduce consumer uncertainty following the model in Lazarev (2025).

Afterwards, I use the choice functions emerging from the dynamic discrete choice model of consumers and the data to estimate the parameters governing consumers' decisions. To do so, I use standard structural IO techniques combined with two variations. First, I use dynamic discrete choice estimation techniques derived from Hotz and Miller (1993) to estimate probabilities of purchase at different times before departure. Secondly, I follow Dubé et al. (2020) to deal with the presence of zero purchase observations in my data. With those parameters in hand, I develop a supply model in which airlines must choose the schedule of prices for all their flights (products) in every route-week pair (market). This model allows me to derive optimality conditions, which I use to obtain marginal cost estimates.

Finally, I use the airline pricing model with the estimated marginal costs and demand parameters to simulate the change in equilibrium prices and quantities after changing the subsidy design to a unit design, i.e. consumers receive a fixed quantity every time they purchase, irrespective of the price posted by the airline. This counterfactual experiment allows me to show that the change in subsidy design would result in 15% savings for the government. The main driver behind this would be the change in purchasing patterns: the share of purchases made in the final period would decrease and the share of lowcost carriers would increase. I show that in presence of price discrimination, subsidy design can generate larger savings than with uniform pricing, due to the impact on market shares and because of steering of consumers towards less expensive options.

The Determinants of Pass-Through with Capacity Constraints and Dynamic Demand. In related research, I have used the observed subsidy rate increase of 2018 to analyze the pass-through of the subsidy to consumer prices. More specifically, I have analyzed how the degree of pass-through changes depending on three main factors, the degree of competition in the route, how long in advance purchases are made, and the stringency of capacity constraints in a certain route. Using the same dataset, I employ reduced form techniques to quantify the pass-through of the subsidy increase. The main empirical strategy I use is a difference-in-differences approach with continuous treatment. I use the share of resident consumers in a route as a measure of treatment intensity.

I find that pass-through is less than complete. On average, 75% of the subsidy increase was passed through to consumer prices. I then develop a theoretical model to rationalize the observed effects, and I show that time to departure and capacity constraints are relevant features that affect the usual determinants of pass-through in oligopolistic settings. I also show how the presence of strategic substitutabilities between prices in different periods alter the usual analysis of the effect

of competition on pass-through, and how this can explain a negative impact of competition on pass-through rates.

In the past few months, I have made this project a coauthored paper with Paula Navarro-Sarmiento, post-doc at CEMFI, who has access to data on prices in other routes between major European cities, and the Canary and the Balearic Islands. These data provides us with the ideal control group to run a standard difference-in-differences analysis to measure the pass-through of the subsidy increase. This will complement the current analysis and it will strengthen the empirical strategy in the paper, providing a more credible measurement of the pass-through rate.

My Research on Education Economics

The Role of Capacity Constraints in Public versus Private University Choice

In this line of research, joint with my colleague at the EUI Isabel Soler-Albadalejo, we study the determinants behind the growth of private university share of new enrolment in the past decade in many European countries. We leverage Spanish micro data on student choices about their major, as well as second choices when they are not admitted in their first option. We set up a decision model with heteregeneous individuals in terms of ability and parental income, who must decide their field of study and the type of university, public or private. We allow for nested logit preferences, to capture substitution patterns in which students not admitted to their first options are more likely to substitute for the same field in the other type of university rather than with other fields. Then, we set up an allocation mechanism which mirrors the one in place in Spain: students are allocated according to their grades in a state exam at the end of high school. We introduce capacity constraints in the public university, and when those constraints are binding, remaining students are forced to reoptimize.

Using data from Spain to calibrate the model parameters, our findings reveal that 28% of private university enrollments can be attributed to public capacity constraints. Furthermore, the study identifies several other factors that might have contributed to the rise of private Spanish universities from 2015 to 2020, with convergence in perceived quality of private university to the levels of public universities, and increased population wealth being the most influential. We plan to extend the project by conducting some policy analysis to understand the effects of increasing capacity in public universities. The objective of this analysis is to understand whether this would reverse the current growth of private universities share, or whether investments in quality of public universities are needed.

My Research in the Near Future

In the coming years, I would like to pursue further research in the area of policy interventions in industries with capacity constraints and multiperiod pricing. In particular, I would like to evaluate the impact of different policy interventions in the extensive margin of firm decisions, that is, on their decisions on which markets to serve and how much capacity to offer in each of these markets.

I believe the empirical application used in my job market paper is also suitable to study this, since it contains variation in the presence of firms and the capacity they offer across several markets, as well as observed entry and exit in some of those markets.

I also have initiated a line of research in joint work with KU Leuven Professor Marleen Marra, in which we study the effect of data aggregation on bias in elasticity estimates. We are trying to understand the extent to which the route-level analysis prevalent in existing airline literature, which overlooks key factors such as consumer departure and arrival time preferences, also biases the estimated price elasticities. The goal is to develop a formal analysis of how the structure of the data used in demand analysis (combined with the adopted identification strategy) affects conclusions, extending preliminary work in this dimension (D'Haultfœuille et al. (2022)). The results of this research are expected to bring about a discussion of a potential "heterogeneity bias" associated with the level of aggregation in demand-supply models, as identified in the trade literature (Imbs and Mejean (2015)).

Teaching Statement

During my Ph.D., I have worked as Teaching Assistant (TA) in two different courses. I was TA for the core course Microeconomics I in the EUI Ph.D. program from 2021 to 2023, between my second and fourth year in the Ph.D., with Professor Laurent Mathevet (currently at University of Arizona) as instructor. The topics covered were consumer theory, producer theory, general equilibrium, and choice under uncertainty and general equilibrium with time and uncertainty. During my fifth year, I was TA for the undergraduate Econometrics course in the New York University campus in Florence, with Professor Giampiero Gallo as instructor. I can honestly say I really enjoyed the experience and I found it quite fulfilling. I believe one of the most gratifying features of academic jobs, as well as one of my main motivations to remain in academia, is to be able to help other people by transmitting your knowledge.

I like to have a personalized teaching approach in which I help every student according to their needs. I also believe in interactive sessions in which students play an active role in their learning, rather than only a passive role as listeners. I am also a dynamic teacher who can look for solutions to improve the learning environment when I believe things are not working as they should. As an example of this, during my TA for Microeconomics I, I was concerned about students not being engaged in problem set correction sessions. To tackle this, I suggested and implemented an interactive exercise correction procedure, in which students would solve the exercises in the assignments. I also like to teach using basic examples and simple situations to build understanding of complex concepts. The reviews of students of my performance as TA in the Microeconomics I course show I am a motivated instructor who manages to help students better understand the material.

With respect to my future teaching activities, I believe I could teach Industrial Organization at graduate level. My preference would be to teach a course on Empirical IO, with a special focus on the frontier topics I have learned during my Ph.D., namely dynamic discrete choice estimation and demand estimation with zero purchases observations. Furthermore, I believe I could also teach a theoretical course in IO, Antitrust Economics and Economics of Regulation, as well as any core course in the Microeconomics sequence. In undergraduate level, I feel comfortable enough to teach any core course in any area of Economics. I would also be very interested in advising or directing undergrad and Master's thesis on topics related to my areas of research.