My research concerns the pricing and strategic interactions among firms, with a focus on the airline industry and online platforms. I use various empirical models to analyze the structure, behavior and performance of firms and markets.

In my job market paper, “The Effect of Southwest on Airline Market Structures”, I study how Southwest Airlines, the largest low-cost carrier (LCC) by far, influences the profits and entry decisions of its competitors. To achieve this, I first estimated a game of simultaneous entry using a bounds approach developed by Ciliberto and Tamer (2009), where firms’ decisions to enter a market are based on whether they will realize positive profits from entry. I find that Southwest has a very strong negative impact on the payoff functions of its competitors. Moreover, this impact varies across airlines. The profits of medium airlines and small LCCs are more seriously influenced than that of large airlines. Among large airlines, Delta is influenced the most. I then perform counterfactual experiments to assess the extent to which the entry of Southwest influences the entry of other airlines. Essentially the counterfactuals are done by setting the competitive effects of Southwest equal to zero and then recompute the new equilibria. I find that removing Southwest increases the probability of observing medium airlines and small LCCs in the market by as much as 44%. I also find that the number of non-Southwest airlines in the market significantly increases.

My second paper, titled “A Re-Examination of Southwest's Entry”, examines how incumbents change their prices upon Southwest’s entry. The main novelty of my work is to incorporate both nonstop flights and connecting flights. Most of the existing literature focus on only the nonstop flights, because they think that “nonstop service and connecting service can be considered separate markets” (Goolsbee and Syverson 2008). However, in fact, connecting flights can partially substitute nonstop flights, and vice versa. My results show that the prices of both connecting flights and nonstop flights decline when Southwest starts to operate on the route, either with or without stops. Moreover, the connecting flights have a much larger fare drop than the nonstop flights. The reason is that connecting flights are less competitive upon new entrants due to their inconvenience, and thus incumbents have to cut prices more to ensure that they remain attractive. My findings also suggest that connecting products and nonstop products are competing with each other and should be treated as being in related markets.

My third paper, “The Role of Reputation in Daily Deal Markets: the Case of Groupon”, addresses whether and how business reputation moderates the sales and promotion results of daily deal coupons. As a leader in the daily deal market, Groupon announces a large amount of online discount vouchers on a daily basis, most of which are offered by small and local businesses. Using a unique dataset scraped from Groupon, I show that business reputation, measured by the percentage of positive reviews, is positively associated with the sales of coupons. I then include reputation from external platforms, namely, the star ratings from Yelp and Google, and find that although these ratings are positively associated with coupon sales, the impact is much smaller compared to the impact of Groupon ratings. Subsequently, I use the number of Yelp reviews that mention the keyword “Groupon” as a proxy of customer flows that are brought in by Groupon vouchers directly, and show that reputation is positively associated with the promotion results of coupons.