

October 29, 2015

## TO WHOM IT MAY CONCERN

I am writing with great enthusiasm to recommend **Yufei Wu**, a 2016 Economics PhD candidate from MIT who is on the academic job market this year. Yufei is a public finance and health economist, who is doing work at the PF-IO intersection. I know Yufei very well; I am one of her primary dissertation advisers and have worked closely with her during her entire time in graduate school – she took my graduate public finance class (in which she still holds the record of the best in-class exam in my teaching career), was my research assistant, and is now my dissertation advisee.

Yufei has an exciting and well-developed research agenda on supply-side behavior by private firms subject to public regulation, in the particular context of the Medicare Part D program, the publicly subsidized and regulated, privately run prescription drug insurance program for the elderly and disabled in the United States. The 2006 introduction of Medicare Part D was by far the most important benefit expansion in Medicare's nearly half-century of existence. About 40 million people receive Part D coverage, and it accounts for about 10 percent of total Medicare spending.

The Part D market has attracted considerable interest by academic economists, not only because of its size but because the fact that the insurance is provided by private firms (and consumers face a choice of products from among competing firms) represents a stark departure from the uniform, publicly provided insurance coverage structure of the existing parts of Medicare (for hospital and physician services). Most of that research however, has focused on either analyzing consumer choice over privately-provided plans, or the responsiveness of consumer's drug purchases to the out of pocket price. Yufei looks instead at the behavior of the private insurance firms that offer plans.

Her job market paper looks at firms' pricing strategies in Medicare Part D. It has been well documented that consumers in health insurance markets – both Part D markets and other health insurance markets – behave as though they face substantial switching costs in their health insurance plan choice (often referred to as “consumer inertia”). Yufei's job market behavior investigates whether – and to what extent – private insurers' pricing strategies are affected by this consumer inertia. She presents descriptive evidence that is consistent with an “invest and harvest strategy”: insurers initially set low markups on their plans (presumably to attract new consumers) and then “harvest” them by raising prices on the plan in subsequent years.

The heart of her paper is a structural supply-side model of firms' pricing behavior in response to the “inertial” consumer demand. She uses the estimates of the model to quantify the implications of strategic pricing for equilibrium pricing, and to explore the impact of counterfactual public policies on equilibrium pricing and consumer welfare. A priori, it is ambiguous whether an “invest-and-harvest” strategy will result in lower or higher prices relative to a counterfactual benchmark in which consumers are not inertia, as it depends on whether the price-lowering investment incentive empirically dominates the price-raising harvest investment. She finds that the investment incentive dominates – equilibrium

prices are lower than they would be if all consumers were “active”. She then considers the impact on consumer welfare of various potential policies that could constraint insurers’ ability to conduct invest-then-harvest strategies. She finds, for example, substantial consumer welfare improvements from a policy change that would cap premium increases. This is a very nice paper that uses frontier approaches from structural IO (e.g. Bajari, Benkard and Levin 2007) to investigate questions that are both economically interesting and substantively important.

Yufei also has several other projects-in-progress. One project, which is quite complementary with her job market paper, looks at the fact that it is optimal for firms to price discriminate between new (active) enrollees and old (inertial) enrollees. However, given that regulation forbids such price discrimination, firms should have an incentive to continuously introduce new plans that can be priced low to “invest” in future demand while charging higher premiums to existing (incumbent) consumers. She provides descriptive evidence of such strategic product proliferation and then extends the supply-side model estimated in her job market paper to include entry decisions. She is also working on a third, but quite different, Part D project (with fellow graduate student Manisha Padi) on consumer learning in Part D and its impact on firm pricing strategies. Finally, she has a separate project that is well under way (joint with Manuel Hermosilla, a 2014 PhD from Northwestern) on pharmaceutical licensing.

In sum, both her job market paper and these several other related projects underscore that Yufei has already started to develop her own research agenda on the supply-side behavior of private insurers in the publicly subsidized and regulated Medicare Part D market. She is a productive and energetic researcher with an attractive combination of methodological approaches – including both descriptive empirical work and structural estimation. While it is always difficult to forecast the future, I expect she will continue to make important contributions in this important area in health economics at the rich intersection (both topically and methodologically) of public finance and industrial organization.

In addition to her research, I expect Yufei to be a very good teacher. Although not a native speaker, her spoken English is very fluent and clear, and she is a clear and energetic presenter. She has been a teaching assistant in the MIT undergraduate course, Energy Economics and Policy, where she earned high teaching rates (5.6 out of 7, relative to a median and mean of about 5). At a personal level, Yufei is personable and pleasant; she will make an excellent colleague.

I recommend Yufei with great enthusiasm to all economics departments, business schools, and public policy schools and schools of public health with an interest in health economics, from a public finance and/or industrial organization perspective and approach.

Sincerely,



Amy Finkelstein