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Dear Sir or Madam:

I am writing on behalf of **Yufei Wu**, a PhD student in economics at **MIT** who is on the academic job market this year. Yufei is an economist focused in public finance and health economics. I am very pleased to have the opportunity to recommend Yufei as a bright and hard-working student who I expect to have a productive career working on research at the intersection of public finance and industrial organization.

By way of background, Yufei was an undergraduate student at Tsinghua University – one of the top universities in China – where she graduated first in her class with a dual major in economics and mathematics. While a student at Tsinghua, she was chosen to participate in a prestigious exchange program at the UC-Berkeley Department of Economics, where she earned a 4.0 in graduate-level coursework in economics. Based on that strong record, she received an MIT graduate fellowship and earned a perfect 5.0 GPA in the MIT economics PhD program – including earning a number of A+ grades across a wide range of courses, from microeconomic theory to macro courses to econometrics and applied labor and public economics field courses. One of the A+ grades was in the graduate labor course that I co-teach with David Autor, and her work in that course was truly outstanding. I think this record makes clear that she is both quite bright and extremely hard working.

In addition to having had Yufei in class, while at MIT Yufei worked as a research assistant for me on several projects. Most in-depth was work on a joint project with Liran Einav (Stanford) and Amy Finkelstein (MIT). That project had both a reduced form component and a structural component, so I had the opportunity to work with Yufei and see her skills on a relatively wide range of tasks – from basic data construction, to developing a source of empirical variation into reduced form estimates, to implementing a more structural framework which allows for the calculation of welfare under different counterfactual policies. She excelled in all of these areas, and this “up close” view of her research skills gave me confidence in her potential for future research.

I know that Yufei’s committee chair (Amy Finkelstein) is writing under separate cover to weigh in on Yufei’s job market paper in great detail, but let me discuss that work in some detail here as well. Yufei’s job market paper builds on recent work (by Ben Handel, Maria Polyakova, and others) which has established that consumers act as if they face large “switching costs” in insurance markets. Yufei proposed what I think is an excellent idea, which is to take this demand-side fact and incorporate it into an analysis of strategic firm pricing – that is, to test and quantify whether and how firms take advantage of consumer inertia when setting prices. Yufei is implementing this idea in the context of the US Medicare Part D program, an economically important market which is a natural fit for this topic because – in contrast with “traditional” Medicare, which is publicly provided – Medicare Part D plans are provided by private firms, hence providing a natural setting in which to analyze questions about strategic pricing by private firms.

Building on past work (Polyakova’s work in particular) which has documented consumer inertia in Medicare Part D plan choice decisions, Yufei’s paper proceeds in three steps. First, she documents some basic descriptive facts that are consistent with firms taking advantage of consumer inertia when setting prices. In particular, she investigates predictions from a model in the spirit of Klemperer (1987) in which firms “invest” in low prices in order to lock in inertial consumers, and then subsequently “harvest” by increasing prices to exploit inertia among incumbent consumers. When firms first enter the market, they face only the “invest” incentive, whereas in subsequent years they trade off the “invest” and “harvest” incentives (which push in opposite directions). Hence, one testable empirical prediction is that plans should choose lower prices when they first enter, and should increase prices in subsequent years; Yufei documents that this pattern indeed appears in the data.

Second, having documented this descriptive evidence consistent with “invest and harvest pricing,” Yufei then dives into what is the heart of her analysis, which is writing down and estimating a structural model of firm pricing decisions. A priori, it is ambiguous whether such “invest and harvest pricing” will raise or lower equilibrium prices, as that depends on how much insurers value future profits relative to current profits. Yufei estimates this structural model using a Bajari, Benkard, and Levin (2007) two-step approach, which allows her to estimate the discount factor used by firms – the key parameter which tells us how firms value current profits relative to future profits. Based on her estimate of that discount factor, she then is able to decompose the relative importance of the invest and harvest incentives, and finds that on net consumer inertia and “invest and harvest pricing” result in lower equilibrium prices.

Finally, Yufei uses her structural model to analyze several counterfactual policy experiments of ways through which the government could potentially limit private insurers’ ability to exploit consumer inertia. For example, one way to limit the

“invest and harvest pricing” is to cap the annual percentage increase in plan premia; among the policies Yufei analyzes, this strategy appears to be the most effective in increasing consumer welfare.

From a practical perspective, Yufei has energetically and thoughtfully tackled digging into the Medicare claims data for this project (which, as is well-known to users of that data, is not an easy task). I expect that work to pay dividends in the future as Yufei is well versed in both the institutional details and in data sets that will be useful to her as she continues her research agenda in this area.

While her job market paper and much of her work-in-progress is focused on health care markets, Yufei has also expressed interest in innovation and entrepreneurship topics, as evidenced by her attendance of the NBER Entrepreneurship Research Boot Camp, as well as her enrollment in Pierre Azoulay and Scott Stern’s 15.357 “Economics of Innovation and Entrepreneurship” course at MIT Sloan. Based partly on a proposal for a research project on technology licensing in the pharmaceutical industry that is joint work with Manuel Hermosilla, a young assistant professor at Johns Hopkins Carey Business School, Yufei was awarded an Ewing Marion Kauffman Dissertation Fellowship. While that particular research project with Hermosilla is quite complementary to Yufei’s other work – in that it uses Medicare Part D as a source of variation to investigate how market size changes affect technology licensing – my sense is that Yufei has broader interests in this space that she will pursue in future work as well.

In my view, Yufei has a pipeline of research that is indicative of someone who will have a productive career working in the health space at the intersection of public finance and industrial organization. On a personal level, she is also a very nice person, and is both quite bright and very hard working.

Please do not hesitate to contact me if I can be of further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Heidi Williams".

Heidi Williams