Paper Proposed for NBER-CRIW October 18-19, 2013 conference, "Evaluating Health Care Spending: Progress and Gaps in the Health Care Statistical Infrastructure", Washington DC

"Measuring and Modeling the Dynamics of Brand-Generic Competition in U.S. Pharmaceutical Markets"

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Price measurement in markets with heterogeneous consumers, sellers having finite duration market exclusivity, innovative product introductions, aggressive marketing, changing regulatory, legislative and legal environments, and increasingly concentrated buying power is likely to be very challenging, and so it is with brand-generic competition in U.S. pharmaceutical markets. Within the last decade in the U.S. prescription drug insurance coverage has been expanded to cover Medicare and dual Medicare-Medicaid beneficiaries, considerable consolidation has occurred among pharmaceutical benefit managers and drug wholesalers, echos of the mid-1990s FDA drug approval surge have emerged as record amounts of branded drug expenditures suddenly plummet in the face of patent expirations and competition from global generic drug manufacturers, the generic share of all prescriptions dispensed had reached 80%, and incentives to litigate patent challenges have increased as successful challengers enjoy 180 days of shared exclusivity with the brand. U.S. pharmaceutical markets are clearly experiencing dynamic changes, with more to come as the biologics market faces the prospect of biosimilar competition in the near future.

In this academic, think tank, industry and government agency collaborative research project, we examine the economics of market adjustments to generic entry, and the implications of those dynamics for how best to incorporate market price and quantity weight adjustments following initial generic entry in the prescription pharmaceutical measurement programs of the BLS' Consumer and Producer Price Indexes. We will focus on all brands experiencing initial generic competition in the U.S. from January 2006 through July 2012, comparing trends in the BLS' CPI-Rx and PPI-Rx samples with the considerably larger IMS Health data products, Xponent (dispensing data) and National Sales Perspective (sales to wholesalers, and providers who dispense). Working with BLS economists, we will have access to confidential data at the BLS under specified confidentiality agreements. Access to the IMS data sets is being arranged via agreements between IMS Health and the National Bureau of Economic Research in Cambridge, Massachusetts.

We envisage a first draft of this paper being available for a possible pre-conference at the Summer Institute of the National Bureau of Economic Research in July or August 2013.