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## USING AN ASKING PRICE MECHANISM

In many markets, sellers advertise their goods with an *asking price*. This is a price at which the seller is willing to take his goods off the market and trade immediately, although it is understood that a buyer can submit an offer below the asking price and that this offer may be accepted if the seller receives no better offers. Despite their prevalence in a variety of real-world markets, asking prices have received little attention in the academic literature. The authors construct an environment with a few simple, realistic ingredients and demonstrate that using an asking price is optimal: It is the pricing mechanism that maximizes sellers' revenues, and it implements the efficient outcome in equilibrium. The authors provide a complete characterization of this equilibrium and use it to explore the positive implications of this pricing mechanism for transaction prices and allocations.

*Working Paper 13-7, "Competing with Asking Prices," Benjamin Lester, Federal Reserve Bank of Philadelphia; Ludo Visschers, Universidad Carlos III; and Ronald Wolthoff, University of Toronto*

## STUDYING THE AGENCY CMO MARKET

The agency CMO market, an often overlooked corner of mortgage finance, has experienced tremendous growth over the past decade. This paper explains the rationale behind the construction of agency CMOs, quantifies risks embedded

in agency CMOs using a traditional and a novel approach, and offers valuable lessons learned when interpreting these risk measures. Among these lessons is that to fully understand the risks in agency CMOs, a full bond-by-bond analysis is necessary and that interest rate risk is not the only risk that needs to be considered when conducting risk management with CMOs.

*Working Paper 13-8, "Understanding and Measuring Risks in Agency CMOs," Nicholas Arcidiacono, Federal Reserve Bank of Philadelphia; Larry Cordell, Federal Reserve Bank of Philadelphia; Andrew Davidson, Andrew Davidson & Company; and Alex Levin, Andrew Davidson & Company*

## INVESTIGATING WORKER FLOWS AND JOB FLOWS

This paper studies the quantitative properties of a multiple-worker firm matching model with on-the-job search in which heterogeneous firms operate decreasing-returns-to-scale production technology. The authors focus on the model's ability to replicate the business cycle features of job flows, worker flows between employment and unemployment, and job-to-job transitions. The calibrated model successfully replicates (1) countercyclical worker flows between employment and unemployment, (2) procyclical job-to-job transitions, and (3) opposite movements of job creation and destruction rates over the business cycle. The cyclical properties of worker flows between employment and unemployment differ from those of job flows, partly because of the presence of job-to-job

transitions. The authors also show, however, that job flows measured by net employment changes differ significantly from total worker separation and accession rates because separations also occur at firms with positive net employment changes, and similarly, firms that are shrinking on net may hire workers to partially offset attritions. The presence of job-to-job transitions is the key to producing these differences.

*Working Paper 13-9, "Worker Flows and Job Flows: A Quantitative Investigation," Shigeru Fujita, Federal Reserve Bank of Philadelphia, and Makoto Nakajima, Federal Reserve Bank of Philadelphia*

### **THE LINK BETWEEN TFP GROWTH AND THE VALUE OF U.S. CORPORATIONS**

This paper documents a strong association between total factor productivity (TFP) growth and the value of U.S. corporations (measured as the value of equities and net debt for the U.S. corporate sector) throughout the postwar period. Persistent fluctuations in the first two moments of TFP growth predict two-thirds of the medium-term variation in the value of U.S. corporations relative to gross domestic product (henceforth value-output ratio). An increase in the conditional mean of TFP growth by 1 percent is associated with a 21 percent increase in the value-output ratio, while this indicator declines by 12 percent following a 1 percent increase in the standard deviation of TFP growth. A possible explanation for these findings is that movements in the first two moments of aggregate productivity affect the expectations that investors have regarding future corporate payouts as well as their perceived risk. The authors develop a dynamic stochastic general equilibrium model with the aim of verifying how sensible this interpretation is. The model features recursive preferences for the households, Markov-Switching regimes in the first two moments of TFP growth, incomplete information, and monopolistic rents. Under a plausible

calibration and including all these features, the model can account for a sizable fraction of the elasticity of the value-output ratio to the first two moments of TFP growth.

*Working Paper 13-10, "Risk, Economic Growth, and the Value of U.S. Corporations," by Luigi Bocola, University of Pennsylvania, and Nils Gornemann, University of Pennsylvania*

### **EXPANDING EMPLOYMENT THROUGH STATE DEFICIT POLICIES**

Using a sample of the 48 mainland U.S. states for the period 1973-2009, we study the ability of U.S. states to expand their own state employment through the use of state deficit policies. The analysis allows for the facts that U.S. states are part of a wider monetary and economic union with free factor mobility across all states and that state residents and firms may purchase goods from "neighboring" states. Those purchases may generate economic spillovers across neighbors. Estimates suggest that states can increase their own state employment by increasing their own deficits. There is evidence of spillovers to employment in neighboring states defined by common cyclical patterns among state economies. For large states, aggregate spillovers to their economic neighbors are approximately two-thirds of the large state's job growth. Because of significant spillovers and possible incentives to free ride, there is a potential case to actively coordinate (i.e., centralize) the management of stabilization policies. Finally, when these deficits are scheduled for repayment, the job effects of a temporary increase in a state's own deficits persist for at most one to two years, and there is evidence of a negative impact of state jobs.

*Working Paper 13-11, "Local Deficits and Local Jobs: Can U.S. States Stabilize Their Own Economies?," Gerald Carlino, Federal Reserve Bank of Philadelphia, and Robert Inman, The Wharton School, University of Pennsylvania*