#### DISCUSSION

#### Robert E. Hall Hoover Institution and Department of Economics Stanford University NBER

AEA Session on Housing, Unemployment, and Monetary Policy Discussion of "On the Dynamics of Unemployment, Sectoral Reallocation, and Housing Prices under Financial Frictions" by William Branch, Nicolas Petrosky-Nadeau, and Guillaume Rocheteau 5 January 2015

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# Two big challenges in fluctuations modeling after the Great Recession

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- 1. Generating unemployment variation in the DMP model
  - A. Determining appropriate driving force, not productivity
  - B. Solving the Shimer puzzle for that driving force
- 2. Generating big changes in house prices

## $1.A. \ DMP$ driving force in the paper

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Probability of high-revenue sale depends on borrowing power of consumers

This connects the labor market to the housing market

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It would be desirable to reveal the size of the variations in  $z^g$  and  $z^h$  directly

# 1.B. THE SHIMER PUZZLE

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Example: Walsh (2003) invoked shifts in market power known to occur in the New Keynesian model as a driving force in the DMP model, but the resulting movements in the marginal revenue product of labor are not nearly big enough to explain unemployment movements with the Shimer calibration

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Wage determination expressed in equation (21), following Pissarides (2000), equation 1.23, dropping a forest of sub- and superscripts, as :

$$w = \lambda z + (1 - \lambda)w_0 + \lambda \theta k + (1 - \lambda)\Omega(i),$$

where z the a new worker's contribution to revenue,  $w_0$  is the flow value of unemployment,  $\theta$  is tightness, the ratio of vacancies to unemployment, k is the cost of maintaining a vacancy, and  $\Omega$  is the cost of moving to the other sector

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It arises because the threat point in the Nash bargain is to return to search, and that threat is more valuable if another job opportunity is easy to find

The calibration departs from Shimer's. Bargaining is biased toward the jobseeker and the flow value of unemployment is higher relative to productivity. Neither would explain how the paper overcomes the Shimer puzzle

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Hornstein-Krusell-Violante (2007) with support from Hall-Mueller (2014), using microdata on acceptance decisions of jobseekers, find very low flow values, even negative

## CONCLUSION ON THE LABOR MARKET

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But the paper needs to take the reader through the numbers to see how it overcomes the Shimer puzzle so decisively

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# 2. Housing and unemployment

A standard view—one that I buy into—is that the collapse of housing prices squeezed household budgets by cutting off borrowing opportunities, and that the Fed could not offset the decline in demand fully because of the zero lower bound

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Modeling this with endogenous house prices has been a challenge. Burnside, Eichenbaum, and Rebelo, "Understanding Booms and Busts in Housing Markets" is one effort that deserves discussion and Justiniano, Primiceri, and Tambalotti, "Credit Supply and The Housing Boom" is another

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The run-up in house prices becomes self-sustaining, as rising prices free up borrowing power and generate a consumption-housing boom

#### HOUSE-PRICE EXPLOSION

I calculated the response of house prices under the following conditions. From quiescent origins, an outside force causes a one-percent increase in house prices. From that point on, the prices follow the trajectory of the expectation-formation equation.

## Impulse response of house prices



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The leap from rational expectations to extrapolation is a big one—some of us need more convincing even though we know that rational expectations seems to fail in the housing market

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