Albert Marcet began the discussion by asking whether the model of unemployment (extensive margin adjustment) presented could be expressed as a model of hours worked (intensive margin adjustment). He cited the example of the Hansen (1985) and Rogerson (1988) model of unemployment via lotteries, which is equivalent to a model of hours worked with a linear disutility of labor supply.

Robert Hall commented that a model of wage determination with sticky wages would provide a more appealing amplification mechanism for the underlying shocks of the model. He pointed to the small contribution of estimated contractionary monetary policy shocks to unemployment despite the importance of the zero lower bound. He noted that the authors’ estimation attributes much of the rise in unemployment in the Great Recession to exogenous wage markup shocks that are unrelated by any mechanism to the smaller contemporaneous monetary shocks.

Additionally, Hall reiterated comments by the discussants that unemployment in their model should better match the concept as it is defined and measured. Finally, Hall disagreed with Lawrence Christiano’s comments that the unemployed agents in the model are happier than the employed agents. He emphasized that value should not be confused with utility—value includes not just today’s flow utility but the present value of future earnings that the agent contributes to the household. The contribution of each agent to the household’s value function is the right welfare measure for comparing the states of employment and unemployment.

Robert Gordon, citing current experience, emphasized that unemployment is a source of considerable distress and anxiety, highlighting
the need for models that capture these facts about unemployment. Gordon agreed with Christiano’s view that union power could not explain excessively high wages and pointed to the fact that labor’s nearly constant share of national income suggests little variation in market power for workers. Gordon added that the Okun’s law relationship between output and unemployment appears unchanged despite the differing nature of shocks in the 1960s and 1970s (demand versus supply, respectively). Thus, any shocks explaining unemployment should preserve this relationship.

George Evans suggested an alternative source of the shocks for the Great Recession. Departing from rational expectations, he noted that the financial and housing market crisis could have triggered a collapse in expectations for future output and inflation that would precipitate a large recession today.

Michael Woodford disagreed with Gordon’s view that the labor share should fluctuate with wage markup shocks. He noted that a stable labor share reflects prices in line with average labor costs. Jordi Galí added that a stable price markup should keep the labor share constant despite any markup shocks.

Marjorie Flavin, responding to Christiano’s discussion of the definition of unemployment in the authors’ model, argued that Christiano’s analysis ignores differences between insiders and outsiders in the union. The union may choose to mark up the wage benefiting the insiders, but outsiders would be unhappy, as they would be excluded from the gains secured by the union. These outsiders should be considered unemployed.

Galí began his response by addressing the issue of whether unemployed agents were as happy as the employed agents. He noted that their assumption of risk-sharing among employed and unemployed agents is commonly made to preserve the representative household framework and ensure tractability. He emphasized that agents take into account the utility of the household in making their decisions, since no individual agent has any incentive to work.

Responding to Christiano’s comments about efforts to limit the wealth effects in the model, Galí recognized that the limited short-run wealth effect is important for their results but emphasized that the authors adopted a flexible utility specification (similar to Jaimovich-Rebelo). The parameter governing the short-run wealth effect is estimated and the data prefer a parameter value with smaller wealth ef-
fects. Galí noted that the parameter in the utility function governing the wealth effect can be interpreted as an external habit.

Galí also addressed concerns about the presence of wage markup shocks given the declining role of unions in the US labor market. Galí emphasized that union density is just one dimension of worker’s market power. Factors like unemployment benefits and regulations on hiring and firing are also critical in determining labor’s market power. Galí cited the cross-country evidence showing that union density is not a significant predictor for the level of unemployment. In short, data on US union density does not provide evidence for or against variations in the wage markup.

Responding to Rogerson’s discussion, Galí acknowledged that many factors of unemployment are ignored as the authors focus on high and rigid wages. However, Galí emphasized that their objective is to augment a standard New Keynesian framework with a simple model of unemployment and examine the implications. Galí also noted that the canonical Diamond-Mortensen-Pissarides model features market power on behalf of workers, and wage rigidities are key for generating large fluctuations in employment. He agreed with Rogerson that an incomplete markets model would be ideal but would introduce substantial technical difficulties, and it is unclear how it would improve on the conclusions derived in a simpler setting.

In response to Marcet’s question about whether their labor market model has an intensive margin representation, Galí argued that it is critical for wages to be set collectively but that each individual is a wage-taker, and it is not clear how this corresponds to a model with an intensive margin. In response to Hall’s comment on the link between monetary policy shocks and the wage markup shocks, Galí acknowledged that these might not be true shocks and cited downward nominal wage rigidity as a possible reason why the estimation favors simultaneous negative monetary shocks and positive wage markup shocks.