Andrew Atkeson initiated the discussion by reiterating the two facts presented in the paper. Regarding short-term interest rates, he restated the paper’s finding that, after World War II, most of the movements observed in the short rate appear to have been interpreted by agents as being nearly permanent. Regarding risk, Atkeson reiterated the point that there is a disconnection between the finance literature, which generates a theory of the term structure and risk premia, and the macro literature, which generally rules out varying risk premia. In the finance view of the world, the central bank has no ability to control this risk component, while in work such as the “Carry Trades and Currency Crises” paper of this volume, there is some “suspicion” that somehow this real risk is under the control of the central bank. He viewed the resolution of this issue as a central challenge going forward.

In response, Stanley Zin offered Francisco Palomino’s research program as an example of the type of work that has been reorienting macroeconomics away from thinking about risk premia as simply noisy residuals and incorporating preferences that have a real chance of generating sensible risk premia within a New Keynesian framework. Zin suggested that one of the goals of the present paper could be to argue that risk premia are important not only for generating reasonable asset-pricing implications but also because they might have some real consequences related to monetary policy.

Michael Woodford agreed that it is important to bring evidence from the term structure into monetary economics and to integrate models of the monetary transmission mechanism with models of the term structure. However, he also disagreed with the paper’s claim that a fundamentally different way of understanding how monetary policy affects the economy is required. He first addressed the authors’ claim that existing macro models cannot generate the volatility of long rates relative
to short rates documented in the paper because they assume that the short rate is stationary and ergodic. He pointed out that there is no reason to interpret the historical evidence under this assumption. He referenced early versions of Smets and Wouters’s (2007) model of the U.S. economy, which explain the U.S. history of interest rates and other macro variables using a Taylor rule with a time-varying inflation target modeled as a random walk. That model generates the same predictions about the monetary transmission mechanism as those of a model without time variation in the inflation target. Hence, modifying the model to generate the volatility that concerns the authors did not change the predictions about the nature of desirable stabilization policy or how monetary policy affects the economy relative to expositions that do not happen to match these trends.

Regarding the importance of risk premia in monetary economics, Woodford agreed that it is important to understand better where risk premia come from and what implications they may have for monetary policy. However, he objected to the claim that the mere existence of risk premia invalidates our current understanding of the effects of monetary policy on the economy. He cited the regression results presented by Ang, Piazzesi, and Wei (2006), which show that the expected path of short rates forecasts subsequent GDP growth, as suggested by the Euler equation and consistent with the standard view of the monetary transmission mechanism. Conversely, the risk premium cannot forecast subsequent GDP growth. Hence, the risk premium may not be of tremendous importance for the relationship between the path of short-term rates and GDP, which is the central focus in a model of the monetary transmission mechanism.

Atkeson replied that including a random walk policy target raises questions about the systematic effects of the policy. Such a target implies that the persistence observed in the data now comes directly from policy rather than from agents’ expectations. Patrick Kehoe later criticized the use of time-varying inflation targets for introducing too much freedom in the model. He maintained that standard models without such a feature are not able to generate enough volatility in agents’ long-run expectations of future short rates to match the volatility of long rates relative to short rates found in the data.

In terms of risk premia, Atkeson pointed to empirical evidence of a hump-shaped response of consumption to nominal interest rate shocks that is inconsistent with the theoretical consumption Euler equation. Olivier Blanchard countered that this inconsistency simply reflects the fact that consumers respond with a delay. He pointed to Ricardo Reis’s
work on inattention, which generates exactly these delayed responses. Xavier Gabaix seconded the point, saying that it is not obvious why one should label the difference between the contemporaneous changes in the interest rate and the growth of consumption as risk when it might be a reflection of inertial consumers. Marc Giannoni added that there are many ways to generate the delay in consumption’s response to the interest rate shock and cited the work by Christiano, Eichenbaum, and Evans (2005). He pointed out that, while we may not have a consensus on how to generate the delay or a fully micro-founded approach, small deviations from standard models can essentially fix the issue. Atkeson criticized these attempts as reverse engineering that gets one piece of the model to work but instead generates strange results elsewhere in the model or in response to other shocks. He added that these attempts also do not address the tight link between movements in the short rate and changes in the risk premium.

Marjorie Flavin offered the interaction between durable and nondurable consumption as a way to micro-found the lag in the consumption response. A model that incorporates housing subject to adjustment costs moderates the response of overall consumption to an interest rate shock. The moderation occurs because adjustment costs prevent a full reoptimization of housing consumption and because housing and nondurable consumption are complements. She remarked that we do not need a new approach to monetary policy but rather a realistic refinement of the current approach. Flavin also asked for more clarity on the causes behind the varying risk premium. She wondered if the change in the risk premium reflects changes in the variance of the fundamental shocks or changes in preferences toward risk.

Gregory Mankiw noted that the simple representative agent Euler equation is indeed too simple. He felt that no consensus has emerged on what should replace it and that more work is needed on that front. However, he was puzzled by the authors’ claim that the relation between long-run and short-run yields also poses a fundamental challenge. He concurred with Woodford’s earlier point that stationarity is not a required assumption. Furthermore, he pointed out that, even if one imposes stationarity, the failure cited by the authors rests on the value of the autocorrelation coefficient. The authors use a value of 0.986, which may be too low.

John Cochrane suggested that no complicated models or preferences are needed if monetary policy, rather than affecting risk premia, is understood as responding to risk coming from elsewhere in the economy. In that case, the conventional view of the effect of a monetary policy
shock on the economy has nothing to do with risk. Patrick Kehoe agreed with the first point. He indicated that, when the Fed decides whether to lower or raise rates, it is always motivated by risk considerations. Hence, in his view, a model that ignores the risk component is not very useful.

Harald Uhlig concluded the discussion by stressing the point that we need models that do well both on the asset-pricing side and on the macro side. He was wary of using models that fare poorly on the asset-pricing side to understand the monetary policy side.