

Response to:
The Dynamic Behavior of the Real Exchange Rate in Sticky Price Models: Comment
By Jens Iversen and Ulf Söderström

Jón Steinsson
Columbia University
March 2014

In my paper “The Dynamic Behavior of the Real Exchange Rate in Sticky Price Models” (AER 2008), I argue that sticky price models can match the persistence and volatility of real exchange rates if the dominant source of shocks in the model are real shocks. This result contrasts sharply with a large earlier literature that failed to match the persistence of real exchange rates using sticky price models. The main insight driving the results in my paper is that real exchange rate dynamics are hump-shaped in the data and generating a hump-shaped response of the real exchange rate in the model is key to getting a large amount of persistence.

In my paper, I present two versions of the model – a heterogeneous labor markets version and a homogeneous labor markets model. The results I present turn out to be not very different for these two different versions.

For the heterogeneous labor markets version of my model – the version that is arguably more realistic and I view as the main version of the model – Iversen and Söderström (2014) confirm my conclusions. This version of the model can explain both the persistence and volatility of the real exchange rate.

Iversen and Söderström (2014) critique the conclusions I reach using the homogeneous labor markets version of my model. The equations I present in my paper for the homogeneous labor markets version of the model are for the special case of $\omega = 0$, which corresponds to an infinitely elastic labor supply and a linear production function. I focused on this case in the paper because the equations simplify greatly in this case, but I failed to make this clear in the published version of the paper. Iversen and Söderström (2014) rightly point out that the conclusions for the homogeneous labor markets version are sensitive to this simplification. When one moves away from it an additional term gets added to the Phillips curves in the homogeneous labor markets model and the persistence and volatility of the real exchange rate falls substantially. (The conclusions for the heterogeneous labor markets version are not sensitive to this.)

Iversen and Söderström (2014) go on to make several additional points in their paper. One point that I find particularly interesting is that they show that lowering the elasticity of substitution between home and foreign goods from 10 to 1.5 allows the model (both versions) to match the volatility of the real exchange rate relative to output as well as the volatility of the real exchange rate relative to consumption. (I had focused only on the volatility of the real exchange rate relative to consumption in my paper.)

Iversen and Söderström (2014) present results for several other variations on the calibration I used in my paper and show that in these other cases either the persistence or volatility of the real exchange rate falls. They conclude from this that “sticky prices combined with real shocks are unlikely to be the sole, or even the most important, explanation for the observed behavior of the real exchange rate.”

It is not surprising that many models fail to explain the high persistence and volatility of the real exchange rate. The large literature that preceded my paper and came to negative conclusions illustrates the difficulty of matching these facts. I don’t find the alternative calibrations Iversen and Söderström (2014) present to be as empirically realistic as my baseline specification. I therefore do not agree with their negative conclusion about the role of sticky prices and real shocks in explaining real exchange rate dynamics.