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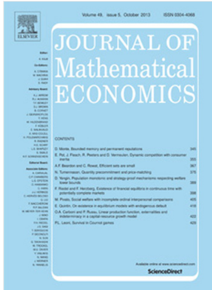

Sticky prices in a dynamic network economy: A family of counterexamples

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Sticky Prices in a Dynamic Network Economy: A Family of Counterexamples*

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Abstract

A central hypothesis of mainstream macroeconomics is that if prices are temporarily fixed (or "sticky"), and if firms with sticky prices respond to changes in demand by changing the quantities they produce, then an expansionary monetary shock will cause real GDP to increase. This paper shows that this hypothesis is not true in general. The paper builds a dynamic general equilibrium model on a particular family of networks, and shows that in these economies, the effect of a monetary shock on aggregate output depends on the interaction between the distribution of money as it evolves over time, and the distribution of sticky prices. In fact, it is possible for an expansionary monetary shock to cause output at every location in the economy, and in all time periods, to fall below the level that would occur if all prices were perfectly flexible. Thus the effect of a monetary shock on aggregate output may depend in a delicate way on the interaction between the distribution of money, and the pattern of sticky prices.

JEL classification: E40, E44
Keywords: Dynamic network economy, Paley graph, pattern of sticky-prices.

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