Federal Reserve Bank of Minneapolis

Summer 1988

Quarterly Review

Modeling the Impact of an Energy Price Shock on Interregional Income Transfer (p. 2)

Clarence W. Nelson

The Relationship Between Money and Prices: Some Historical Evidence Reconsidered (p.18)

Bruce D. Smith

Federal Reserve Bank of Minneapolis

Quarterly Review

Vol. 12, No. 3 ISSN 0271-5287

This publication primarily presents economic research aimed at improving policymaking by the Federal Reserve System and other governmental authorities.

Produced in the Research Department. Edited by Preston J. Miller, Kathleen S. Rolfe, and Inga Velde. Graphic design and typesetting by Barbara Birr, Public Affairs Department.

Address questions to the Research Department, Federal Reserve Bank, Minneapolis, Minnesota 55480 (telephone 612-340-2341).

Articles may be reprinted if the source is credited and the Research Department is provided with copies of reprints.

The views expressed herein are those of the authors and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.

In This Issue

Counting Oil Spoils

In the past 20 years, steep changes in the world price of crude oil altered the fortunes of net energy-producing and net energy-consuming areas of the United States. By some estimates, the transfer of income from consuming to producing states was enormous. In "Modeling the Impact of an Energy Price Shock on Interregional Income Transfer" (p. 2), Clarence W. Nelson generates new estimates of the income transferred between producing and consuming regions after the 1979–80 oil price shock. To produce these estimates, Nelson builds a quantitative model that incorporates much technological and institutional detail and that allows for the workings of several income-redistributing factors: federal taxes and transfers, cross-regional stock ownership in energy companies, cross-regional distribution of royalties from mineral rights, and interregional trade. Nelson finds that although the income transferred between energy-rich and energy-poor regions after the 1979–80 shock was much less than estimates ignoring those factors, the transfer was still significant.

Countering a Specious Argument?

In earlier work, including a winter 1984 *Quarterly Review* paper, Bruce D. Smith has described several episodes in the North American colonies when the quantity theory seems to have been violated: Colonial paper money supplies changed a lot while price levels changed only a little. Critics have responded that these were not violations of the quantity theory, because Smith measured money incorrectly. According to these critics, the colonies were on a fixed exchange rate system with the British pound, so any changes in paper money had to be offset by changes in specie (coins) in order to maintain the exchange rate. Thus, when specie is included in measures of colonial money supplies, the quantity theory is redeemed.

In "The Relationship Between Money and Prices: Some Historical Evidence Reconsidered" (p. 18), Smith argues that his critics are wrong. The North American colonies had no institutional arrangement to fix exchange rates, he points out, so offsetting specie flows cannot be assumed. Therefore, the evidence must be examined. Although the evidence is fragmentary and anecdotal, Smith still is able to conclude that the changes in specie either were much smaller than or were in the same direction as the changes in paper money. Thus, offsetting specie flows do not seem to overturn Smith's earlier conclusion that the experiences of the colonies violate the quantity theory.

Preston J. Miller Editor