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"The Macroeconomic Determinants of Commodity Prices"  
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Commodity markets play a central role in transmitting shocks internationally. Given this role, and the marked fluctuations in commodity prices and volumes in recent years, a comprehensive analysis of the macroeconomic factors having an impact on commodity markets becomes an important factor in policy design, particularly for those countries that rely heavily on primary commodity exports and that are facing substantial terms-of-trade shocks.

While markets for individual commodities are affected by a variety of specific factors in their day-to-day evolution, the aggregate index of non-oil commodities has been treated as a variable whose movements on a quarterly or annual basis are related to prevailing macroeconomic conditions. Studies stressing a "structural" approach to commodity price determination have found that two (demand-side) variables did well in explaining the variation of commodity prices: the state of the business cycle in industrial countries and the real exchange rate of the U.S. dollar. By late 1984, however, the "demand-driven" framework began to systematically overpredict real commodity prices by wide margins and the forecasts have continued to be off-track, suggesting that one or more important variables were being left out of the analysis.

The purpose of this paper is to identify the main economic fundamentals that lie behind the behavior of commodity prices, particularly the recent weakness, and quantify the relative importance of each of these factors over time. The authors extend the "traditional structural approach" described above by incorporating two important developments in international commodity markets of the 1980s and 1990s. These were an increase in commodity exports as developing countries tried to service burgeoning debts, and weaker demand by the economies in transition combined with a sharp increase in the supply of several commodities by these countries.

The main results can be summarized as follows. First, the constructed commodity supply index markedly improves the fit of the structural model and, more important, significantly reduces the out-of-sample overprediction of real commodity prices. Second, while output in Eastern Europe and the former Soviet Union appears to have played a minor role early in the sample period, it acquires an increasingly important role in the more recent period. And third, estimates using quarterly data suggest that while the full structural model does not outperform a random walk forecast of real commodity prices for short-term forecast horizons, it does do so for a longer-term forecast horizon (5 to 31 quarters) and captures the major turning points in real commodity prices during the 1985-1992 period.