Price Discovery

Work on price discovery in asset markets continues. My early papers with a former student, Ted Covey (*Rev Econ and Stat* 1992, *Jo Futures Markets* 1991 and *Jo Empirical Finance* 1995), have been extended to international equity markets (Bessler and Yang *Journal of International Money and Finance* 2003 and Yang and Bessler *Economic Inquiry* 2004, *European Journal of Operational Research* 2008) and a richer set of storable and non-storable commodities (Yang, Bessler and Leatham *Jo Futures Markets* 2000). The DAG work and algorithms of inductive causation, described above, find direct application in much of my current work in price discovery. Applications in the millet markets of Mali show clearly how DAGs can be used to sort-out the causal path in an otherwise complicated pricing networks (Bessler and Krenga , *Journal African Economies* 2002 and Vitale and Bessler *Papers in Regional Science* 2006).

Work in this area of DAG application has also been helpful in sorting out causal flows in ocean grain ship rates in international trade (Haigh, Nomikos and Bessler *Southern Economic Journal* 2004); grain prices and transportation rates (Yu, Bessler and Fuller *Canadian Journal of Agricultural Economics* 2007); causal relations in futures markets (Bryant, Bessler and Haigh, *Jo. Futures Markets* 2006) and electricity prices from spatially separated markets (Park, Mjelde and Bessler *Energy Economics* 2006).

Future work on price discovery will focus on finding the structural model for the long run component of an error correction model of cointegrated price data and exploring the evolution of causal models under environments of structural breaks. To this end the paper by Kim, Leatham and Bessler (*Journal of Housing Economics* 2007) finds a single break-point date in an error correction model on 1971 – 2004 data on US real estate REITS, US equity market indexes, and interest rates. This date is closely placed to the 1979 appointment of Paul Volker as chair of the Federal Reserve Board. The causal structures on contemporaneous innovations from models fit separately to data over each period are considerably different.