## (22) Arnold, Ivo, Van Els, Peter, and Jakob de Haan. "Wealth Effects and Monetary Policy." De Nederlandsche Bank Research Memorandum 719, 2002.

The paper discusses the role of wealth effects in monetary policy viewed from the perspective of the monetary policy strategy of the European Central Bank, in light of the debate of whether central banks that pursue the aim of price stability, usually defined in terms of a price index that does not include asset prices, should broaden the definition of price stability to include them or to adopt an explicit target related to asset prices.

The authors investigate the predictive power of nominal share and housing prices for the European Central Bank indicators, including consumer confidence, producer confidence, capacity utilization, industrial production, retail sales, unemployment, housing permits, consumer prices, producers prices, money supply, private sector borrowing and wages, using Granger causality tests for the European Union countries, in addition to the U.S. and the U.K. for comparisons. The results show that nominal share prices lead confidence indicators, capacity utilization, and industrial production, and producer confidence is strongly correlated with equity prices. In the U.S., equity prices lead all indicators included. The same is true of Germany with the exception of housing permits. In France and Italy, share prices only influence producer confidence and capacity utilization. On the whole, nominal equity prices are poorly correlated with price indicators, not only for the European countries but for the U.S. as well.

In addition, only in Finland do nominal housing prices contain information on the future development of most indicators. In Germany, housing prices seem to exert influence on consumer confidence only, in Italy they affect both consumer and producer confidence, while in the U.S. there is a strong two way correlation between housing prices and consumer confidence. By contrast, the predictive power of normal housing prices for price indicators is considerably more significant and widespread. For the U.S., nominal housing prices lead consumer prices, and the same holds for several European countries, while the link with producer prices is less strong, except in the United States. Money and credit aggregates for Europe are more strongly correlated to housing prices than their counterparts for the U.S., and in a number of European countries changes in nominal housing prices precede movements in private sector borrowing. When real instead of nominal asset prices are considered, the same results emerge.

The results also show that correlations between growth rates of European equity prices are much stronger than those between growth rates of European housing prices, because while increased financial integration in Europe has strengthened the link between equity markets, weak labor mobility in Europe results in a strong segmentation of national housing markets where cross border arbitration has been very limited.

The authors finally implement a counterfactual simulation analysis to find out what the difference would have been if monetary policy makers had responded to a broader inflation rate that is a weighted average of the rise in consumer

prices, the rise in housing prices, and the rise in equity prices. The results show that if a broad definition of inflation had been adopted, the Euro would have had a higher average real interest rates during 1994-2001 causing economic growth to remain slightly lower, which implies that the monetary authorities do not gain much by responding to asset price movements.